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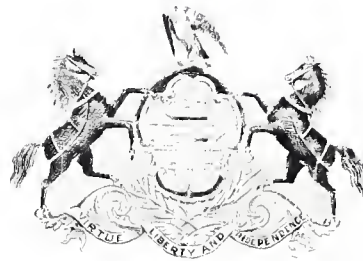
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CONTENTS

<i>Four Years of Pennsylvania Department of Health</i>	I-2
<i>Field Activities</i>	2-3
<i>District Board of Health Associations</i>	3-5
<i>Mont Alto Sanatorium</i>	5-11
<i>Relations of Animal Tuberculosis to Public Health</i>	12-14
<i>State Tuberculosis Clinics</i>	15-17
<i>Pennsylvania's Free State Tuberculosis Sanatoria</i>	17-18
<i>The State Nurse Goes "A-Visiting"</i>	18-22
<i>Helio Therapy at Cresson</i>	22-24

*Be wise to-day; 'tis madness to defer:
Next day the fatal precedent will plead;
Thus on, till wisdom is push'd out of life.
Procrastination is the thief of time;
Year after year it steals, till all are fled,
And to the mercies of a moment leaves
The vast concerns of an eternal scene.*

Edward Young.

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FOUR YEARS OF PENNSYLVANIA'S DEPARTMENT OF HEALTH

The activities of the Pennsylvania Department of Health during the past four years are concisely summed up in Governor Sproul's address to the joint assembly at the biennial convention of the State Legislature on January 2nd 1923, as follows:

Our Department of Health, under the splendid leadership of Colonel Edward Martin, has maintained its pre-eminent position. It has encouraged and supported local health administration; has organized an association including all municipal health boards, with a school of instruction for their better functioning; has conducted a correspondence course reaching more than a million citizens; has enrolled medical, church, school, business, labor and volunteer agencies in a concerted drive for a better public health.

With records showing a doubling of its activities, this department, under a budget system which it established in 1919, has had no deficit, though its last direct appropriation was \$34,369.24 less than was given in 1917.

Without enabling legislation it has completed protection against milk-borne infections for at least a million people; has made 127,474 inspections of food handlers, including those serving at county fairs; has secured 3,820 abatements of insanitary tenement house conditions, while annual inspections were made of 525,000 school children, with permanent records for each. 315,733 defects were found and corrected, and 113,876 scholars, educationally retarded more than three years, were listed.

Practical demonstrations of the means by which teeth may be kept sound have resulted in applying the methods shown to more than 50,000 children.

Narcotic soothing medicines for babies have been eliminated. Four hundred drug peddlers have been apprehended and convicted and fifteen hundred addicts have been cured. The total quantity of narcotics used in the State has been reduced seventy per cent.

In the purchase and distribution of 236,662 packages of antitoxin, vaccines and other biological supplies, lessened personnel, competitive bidding and systematic control of wastage have resulted in a saving of \$130,000.

Efforts to wipe out diphtheria have resulted in one thousand less cases in 1922 than in 1917, the case fatality rate being reduced from twelve in 1917 to nine in 1922.

217,185 laboratory examinations were made, a quantity increase of four hundred per cent, and a cost reduction of one hundred per cent.

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There were 285,000 patient visits to the one hundred and nine tuberculosis clinics, and 13,392 patients were treated in the three sanatoria. Deaths from tuberculosis have been reduced from an average of 136 per 100,000 before 1918, to 91.6 in 1921, representing a yearly salvage of 3600 lives and probable prevention of 30,000 fresh infections.

In the last three years State nurses made 341,498 house visits; attended four hundred and nine clinics, to which there were 800,000 patient visits; provided for 14,579 under-nourished children raised \$239,172.74 in public gifts, which was spent for food, rent, clothing, fuel where it was most needed.

224,957 patient visits were made to State venereal disease clinics; hundreds of places of commercialized vice were closed; 4,480 public health menaces were quarantined, and there were 80,717 administrations of salvarsan without accident.

There are in Pennsylvania four hundred and seventy health centers for babies. In two hundred and fifty of these, in one month, 13,950 babies were examined. Since 1917 the infant death rate has been reduced twenty per cent; a present annual salvage of 4,600 baby lives.

The death rate in Pennsylvania in 1921 was 12.3 per 1,000 population, the lowest in the history of the State. Compared with the death rate of 16 in 1,000 in 1906, when applied to the State as a whole, this means an annual saving of more than 30,000 lives

FIELD ACTIVITIES

The Mount Carmel Clinics serve districts in Northumberland, Columbia and Schuylkill Counties. The rent and overhead expense is paid by the overseers of the poor in the territory which they serve. This not only settles the problem of costs, but makes the Clinics a district, instead of a local institution. The overseers keep in close touch, send patients and outfit patients sent to State Sanatorium and are always amenable to suggestions. The State nurses investigate cases of indigency and their reports are always accepted without question.

As most of the recipients of aid from the charitable organizations of the district come to the Clinic at some time, information concerning these people is usually available in the Clinic. On this account Dr. Williams, who has charge of the work of the Clinics, suggested that each organization send a representative to a monthly conference in the Clinic room. The overseers of the poor are also represented. This system has proven extremely helpful, enabling the various organizations to co-ordinate activities and prevents overlapping, while each organization retains its individuality and initiative.

The McEwensville Board of Health, with the exception of the medical member, is composed entirely of women. A woman is also employed as Secretary and Health Officer. The Board is splendidly efficient. McEwensville is a small borough, and the men capable of

filling borough offices are all serving as municipal officers—the appointment of Women members for the Health Board was a happy solution of a difficult problem.

The Bloomsburg Health Board employs a woman Health Officer. Miss Gertrude Sterling, who does exceptional good sanitary inspection and enforces quarantine effectively.

DISTRICT BOARD OF HEALTH ASSOCIATIONS

Pennsylvania law provides that health administration of boroughs be vested in Boards of Health, appointed by the President of the borough council, by and with the approval of the said body.

Each board of health consists of 5 members one of whom must be a Physician of at least 2 years' practice. The term of office is 5 years, one member being appointed annually. They receive no compensation for their service. The secretary may or may not be a member of the body. In either instance, however, he is entitled to pay. The health officer, who may not be a member of the board, is also entitled to salary. The law further provides that when, in the opinion of the Commissioner of Health, a Board of health is incompetent, or derelict of duty, the Commissioner may discharge the board and appoint a health officer to enforce health regulations and surcharge the borough with all expenses incurred by the said officer. There are now 133 boroughs of Pennsylvania in which health officers, appointed by the Commissioner of Health, are acting.

The health administration of all parts of the State, excepting municipalities and first class townships, is under the direct charge of the Commissioner of Health. Since boroughs are permitted by law to pass health ordinances, provided they do not conflict with existing Acts of Assembly or Department Regulations, it can be readily understood how in time, there could be a wide variance in the health requirements of boroughs in different parts of the State.

As a move toward co-ordinating municipal health administration and establishing a closer co-operation with the State Department of Health, it was decided something more than a year ago, to call together at Harrisburg, representatives of the boards of Health of some of the counties environing Dauphin, to discuss the advisability of forming an organization of health boards for the furtherance of better work in the State.

The matter of arranging the meeting and its program was assigned to the Division of Public Health Education. Accordingly the health boards of the counties of Adams, Columbia, Cumberland, Dauphin, Franklin, Juniata, Lancaster, Lebanon, Montour, Northumberland, Perry, Union, Snyder and York, were asked to meet at the Senate Caucus Room in the State Capitol on October 25, 1921. Out of the 140 health boards included, 90 were represented, some by the entire board. Many came long distances and in a number of instances, two days were required to make the trip. The program consisted of addresses by the Commissioner of Health and other members of the Central Office staff and a demonstration of the method

of organizing and carrying on the work of an average Board of Health. In this demonstration 5 members of the Central Office assumed the position of newly appointed members of the Board of Health of a mythical town named Cairo, which had a population of 5,000. The person who was appointed for the 5 year term, called the appointees to order and received their credentials. Having determined that no member of the board was ineligible by reason of holding office incompatible with membership on a board of health, they proceeded to organize by electing a President, the President then announced that the election of a secretary was in order. At this juncture, one of the members asked what the duties of the secretary were. The duties were explained and in this manner the information was gotten across. In like manner the duties of the health officer were explained. Then came the question of their salary which was discussed and finally decided. The salary of the secretary being set at \$5.00 a month and the health officer at \$30.00. The Board asked for an appropriation from the council of \$1,000 a year for the purpose of carrying on their work. The organization being completed, the board adjourned to meet a little later at its first regular session. In this meeting the health officer's report was heard and complaints from various citizens were taken up and adjusted. The board of Health held four meetings during which a large number of problems involving State Health Laws and Department customs were taken up and such questions as are frequently liable to confront the average board of Health were considered and dealt with. The co-operation which the State Department of Health is anxious and willing to extend to all Boards was brought out in full.

At the conclusion of the program, those present determined to organize into a District Association. They accordingly adopted a constitution, elected officers and decided to make the Association a permanent one, to meet semi-annually. The success of the meeting of District No. 1 was so marked as to encourage the formation of similar Associations in other parts of the State. During the past year the entire State has been organized into 9 Associations. The same program was given at the first meeting of each District Association. At subsequent meetings, other instructive programs were prepared.

The officers of the District Associations are as follows:—

- | | |
|----------------|--|
| District No. 1 | President—Dr. E. E. Campbell, Mechanicsburg
Secretary—Mr. S. B. Jury, Millersburg |
| District No. 2 | President—Dr. C. A. Stout, Cheltenham
Secretary—Mr. S. B. Stillwell, Doylestown |
| District No. 3 | President—Dr. D. H. Kellar, Stroudsburg
Secretary—Mr. Neil McCafferty, Allentown. |
| District No. 4 | President—Mr. Clyde Pipes, Washington
Secretary—Mr. J. B. McCune, Donora. |
| District No. 5 | President—Mr. L. K. Chilcote, Mt. Union
Secretary—Mr. T. G. Herbert, Altoona. |
| District No. 6 | President—Dr. F. D. Pringle, Punxsutawney
Secretary—Dr. J. J. Meyers, Johnstown. |
| District No. 7 | President—Mr. A. R. Wheeler, Edmonton |

- District No. 8 Secretary—Rev. Raymon Kistler, Warren.
 President—Mr. George Williams, Wellsboro
 Secretary—Dr. R. Trainor, Williamsport.
- District No. 9 President—Judge George Maxey, Scranton
 Secretary—Rev. Ferdinand Von Krug, Wyoming

MONT ALTO SANATORIUM

Past and Present

By R. H. McCutcheon, M. D.

Medical Officer in Charge, Mont Alto State Sanatorium.

Many great and important undertakings have their origin in the accidents of everyday life. So it was with the founding of this Sanatorium.

During the summer of 1902 a party of gentlemen was camping in a white pine grove on the mountain four miles east of Mont Alto near the road leading across the South Mountain range from Mont Alto to Fairfield. The location was an ideal one in the midst of thousands of acres of State Forest reserve and with an abundance of good, pure water at hand. One of the party was an asthmatic and at first he, like the rest, was living under the canvas shelter of a tent. However, for his greater comfort during the damp weather, a cabin eight feet square was erected out of some old lumber from a house just torn down at the foot of the mountain. From this cabin started the present camp; eight others, each ten feet square, being built for the benefit of consumptives desirous of camping on the State land during the next year.

The leading spirit in the organization of this Camp for the treatment of tuberculosis was Dr. Joseph Trimble Rothrock, Commissioner of Forestry. He saw the wonderful possibilities of the location, being a physician as well as a forester, and used all his influence with his many friends throughout the State and in the legislature to make the little camp a permanent and useful institution. His son, Dr. A. M. Rothrock, was for several years the physician in charge of the camp and ably carried out the ideas of its founder.

There is a bronze tablet erected on the sanitorium grounds commemorating the work of Dr. J. T. Rothrock which reads as follows;

“Joseph Trimble Rothrock, M. D., Botanist, soldier, explorer and pioneer in the cause of Forest conservation in this commonwealth, established the first free Sanatorium for the open air treatment of tuberculosis at Mont Alto in 1902.”

During the first two years of the Camp's existence all that could be offered the patients was the shelter, the fuel, the water, medicines and the services of the matron and the doctor. In 1904, however,

the Legislature, by its larger appropriation made it possible to add a kitchen and dining room to the plant and the benefit derived from this help was most pronounced. Heretofore all had been required to furnish their own food and to prepare it for themselves, and as can be very readily seen, the best results were not possible under such conditions. Many a patient was not physically able for the labor of cooking and dishwashing and the task once completed, the appetite was often lost. Others again did not know how to cook and with all, it meant that much time was spent over the stoves that could have been far better employed in the open air.

In 1903 the Legislature appropriated the sum of eight thousand dollars for the erection and maintenance for two years of a camp for consumptives at Mont Alto, and with this Act the institution may be said to have been fairly launched on its career.

The original site proved to be somewhat too low for wet weather, and accordingly the new buildings were erected across the road and a little higher up the hill where dryer soil and better drainage could be secured. The old cabins were then placed on skids and dragged over on a line with the newer ones in process of erection.

An Assembly building, an Office, a Spring House, and six Cottages were added with the funds available and shortly afterwards another cottage for four patients was added; then two more cabins and another cottage were constructed and the quota was brought up to thirty patients. As yet, however, the institution was merely a camp in the woods with no provisions made for dining room or kitchen. All who came were obliged to prepare their own meals, keep their quarters in order and in every manner look after themselves.

Little garden plots were allotted to anyone desiring to raise vegetables and this proved quite a source of pleasure as well as of food supply to those who undertook their cultivation.

Dr. Brosius from Mont Alto came for the first year of the Camp's life, once a week, to look after the patients, and then in 1904 a resident physician was put in charge of the medical work.

Mrs. Anna Klee of Chambersburg was made matron and in every way her influence for good was to be seen. Col. O. B. Simmons was the Superintendent, and he and his wife were always ready to lend a helping hand to anyone in need.

The Assembly building deserves a word in passing as it was then, the central point about which revolved the life of camp. It contained but one large room well lighted and ventilated on all four sides and surrounded by an open porch amply big enough to enable all to take the cure upon it. Right up through the middle of the roof rose the chimney from a noble fire-place open on all four sides and big enough to burn full cord wood logs and throw its genial heat and dancing flame light out across the room. During inclement weather all could gather here as in a pavilion and with games and indoor amusements it added greatly to the pleasant, social life of the camp on such occasions. Church services were here too, on Sundays and Wednesdays, and it also served as council chamber for the camp when any points or rules were discussed between patient and staff.

At the next meeting of the Legislature in 1905, fifteen thousand dollars were appropriated and it was possible to add a camp dining room and kitchen to the equipment. One dollar a week was now charged and for this everything was furnished but the laundry and the sputum cups which later were bought in bulk and sold at cost price.

In 1907 the camp was transferred from the Department of Forestry to the Department of Health and with the six hundred thousand dollars then appropriated, a part of the present great buildings and improvements in the plant were constructed.



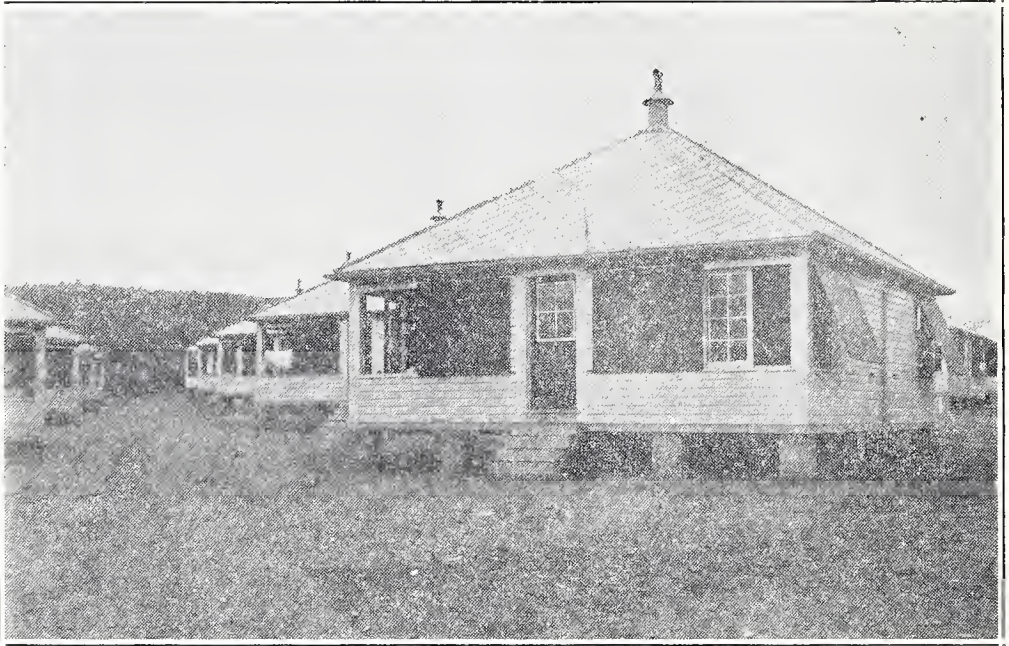
Bird's Eye View of Free State Tuberculosis Sanatorium. at Mont Alto, Pennsylvania.

Samuel G. Dixon, M. D., LL. D., D. Sc., Commissioner of Health from 1905 to 1918, deserves the credit for the futhering of Dr. Rothrock's undertaking by planning and constructing the Sanatorium as it now stands. Dr. Dixon was a man of broad vision and large experience as evidenced by the fact that he was able to carry out the enormous work and to persuade the state to grant sufficient funds for such a new and untried undertaking.

The cottages which now house the ambulant patients were planned by Dr. Dixon and are so simple of plan and construction and yet so satisfactory for the open air treatment, that they were widely copied and are known as the "Dixon Cottage."

As evidence of the high regard in which Dr. Dixon was held by his associates at Mont Alto, a bronze tablet was erected to his memory in 1919 which bears the following inscription:

"Samuel G. Dixon, M. D., LL. D., D. Sc., Commissioner of Health, Commonwealth of Pennsylvania, 1905-1918. Erected by the patients and employees of this institution as a token of their esteem and deep appreciation of his work among them. 1919.



Row of Dixon Cottages.

The Sanatorium is located in Franklin County, in the midst of a State Forestry Reservation of 55,000 acres in the South Mountain range. Mont Alto on the Waynesboro Branch of the Cumberland Valley Railroad is the nearest railway station, and it is four miles distant at the foot of the mountain. The altitude is about 1650 feet above sea level. It is situated on the eastern slope of the mountain and the hills rise up like the sides of a basin some 300 or 400 feet above it. This basin is opened up by mountain passes to the southwest and northeast and east, is well wooded and watered and has a sparse collection of houses scattered over its area.

The woods afford good hunting and the streams are well-supplied with brook trout. The summer temperature is very seldom oppressive, there being a buoyancy in the air during even our hottest days that is most invigorating and our nights even during the warmest weather are comfortably cool. The change in the nature of the atmosphere is most noticeable after climbing up the mountain road from the valley and there seems always to be a fine rest giving breeze as the summit is reached.

There is another great advantage, namely, our freedom from all outside sources of atmospheric contamination. Situated well up above all the valley towns and surrounded by thousands of acres of

forest lands, the air comes to us absolutely pure from every direction. Again so far as we know, we have no adverse influences surrounding the Sanatorium. We are so isolated that there seems to be no dread on the part of those about us that our family of consumptives may do them any harm.

The Sanatorium, as it now stands, is undoubtedly one of the largest of its kind in this country. The Camp plan of treatment, which was started in 1902, is still being carried out although with more comfortable cottages and more modern conveniences. It was found necessary, however, to supplement the camp treatment with a hospital building to accommodate such cases as were confined to bed and required more medical and nursing attention than could properly be given in Camp.

It was also discovered that some provision should be made for the care of children who were too young and feeble for camp life. These and many other factors led to the erection of the numerous Sanatorium buildings as they stand at present. There are seventy cottages in camp, each cottage containing eight beds. The hospital building accommodated two hundred patients, caring for all the patients who were confined to bed. On account of insufficient appropriations, this important part of the Sanatorium was closed from June 1920 until November 1921, when it was opened as a separate institution to care for Veterans of our late war, suffering with tuberculosis.

A large three-story Children's building accommodates one hundred fifty children of both sexes between the ages of six and twelve years; the Dispensary building accommodates twenty-two adult patients confined to bed and also contains Doctors' and Nurses' offices; Dental clinic; Laboratory; Operating room; X-ray and drug room. The basement of the Dispensary contains the camp Post Office, electric shoe repairing outfit and office of a social service worker.

The large Amusement and Assembly Hall was opened December, 1921 and has a seating capacity of five hundred. It is here that moving pictures are shown twice weekly; patients' social evenings are held twice weekly, and facilities are given for medically supervised exercise and recreation during the winter months.

A first-class bowling alley has recently been installed in the rear of the amusement hall which furnishes recreation for such patients as are physically able to indulge in the more active forms of exercise. Two school rooms attached to the Amusement Hall provide possibility for the continuing of the child's education while receiving treatment in the Sanatorium.

Numerous open air cure pavilions provide ample space for each patient in the Institution to spend a certain number of hours daily reclining in the open air.

The mechanical equipment of the Institution including Power Houses, Laundry, Electric Lighting System, Garages, Sewage Disposal Plant, Kitchen and Bakeries are absolutely first-class and up to date in every respect.

From the medical standpoint a patient coming to Mont Alto can be assured of receiving the very best attention by the group of tuberculosis specialists fully trained for their work. The initial examination; the outlined treatment and the care of each individual patient



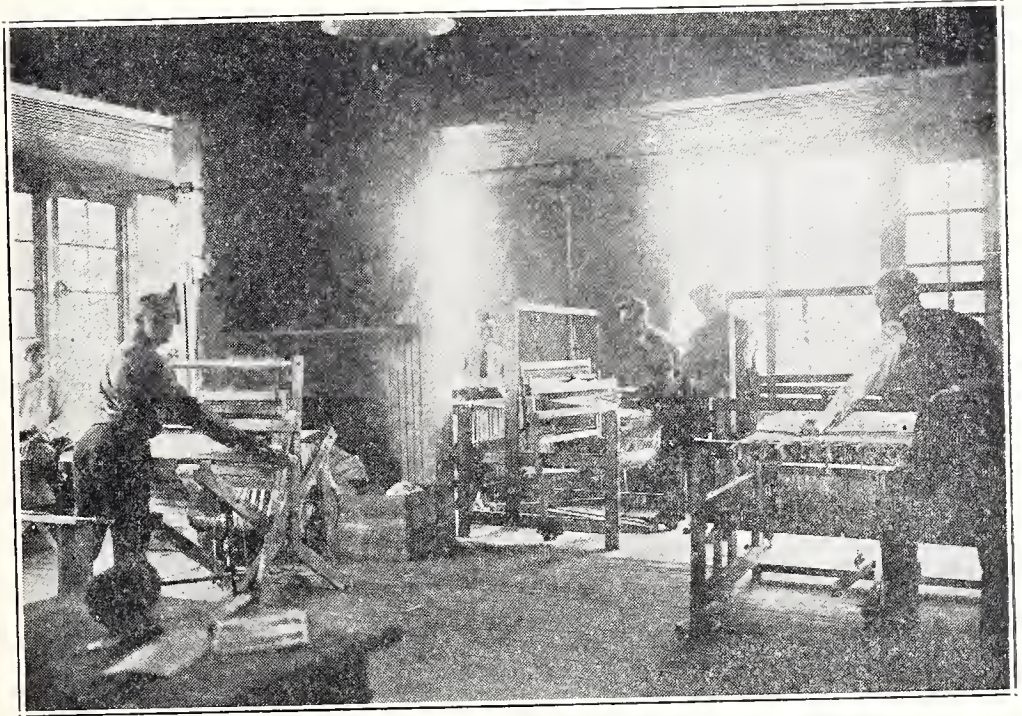
Occupational Therapy at Mont Alto—Patients at work.

has resulted in an unusually large percentage of apparently arrested cases. The term "cure" is so often a misnomer that a word of explanation is deemed necessary. It takes very often from four to five years to establish a permanent cure, while it is often possible to arrest the disease in from four to six months by Sanatorium treatment.

On account of the large number of tuberculous individuals in the State requiring treatment, it has been necessary to limit the stay of our patients to approximately six months. During their Sanatorium experience, patients are instructed by weekly lectures by the medical staff and by daily supervision and example not only how to get well themselves but how to live after leaving the Sanatorium, so that the health and lives of others will not be endangered. The education of the patient along these lines is considered a duty of equal importance to the patient's cure.

Probably the most interesting feature of the Sanatorium at present is the treatment of our children. At least ninety per cent. of children between the ages of six and twelve admitted to this Sanatorium do not have pulmonary tuberculosis. They come either from tuberculous parents or have been in contact with tuberculous friends or relatives, or they have been reared in impoverished homes and are suffering from malnutrition. Our Children's Hospital could rightly be termed a "Preventorium," instead of a "Sanatorium," as it is the aim of this Department to so improve the general health and nutri-

tion of these children that they can combat the danger of the infection of the tubercle bacillus successfully, rather than to cure an infection already existing.



Occupational Therapy at Mont Alto—Patients Weaving.

It is most interesting to observe the extraordinary improvement shown by these children after a few weeks of well-regulated life; proper food; sufficient sleep and suitable recreation. These so called pre-tuberculosis children are cared for on the average for four months. At the end of this period they are permitted to return to their homes stronger in mind and body with increased resistance against all forms of disease.

Another interesting and very important feature of our treatment is the work done in the Occupational Therapy department. The Community Art Shop, Sewing Rooms and Occupational Therapy Studio provide ample facilities for children and adult patients to spend their idle moments in recreation both instructive and beneficial. A large variety of subjects is taught including basketry, weaving, woodworking, sewing, manicuring and the like, and the large number of patients taking advantage of the benefits of this Department speaks for its popularity.

Briefly, the scheme of our sanatorium treatment is divided into two parts. First, rest, as nearly absolute as possible, during the active stages of the disease. Second, rest with graduated exercise up to full time employment of patient during their stage of arrestment. The habits of the first part of the treatment are completely broken up by insisting on exercise, increased gradually as the patient is able, and until such time as it is felt that the patient is able to resume his life's work outside the Sanatorium.

RELATION OF ANIMAL TUBERCULOSIS TO PUBLIC HEALTH

by

T. E. MUNCE, Director, Bureau of Animal Industry.

Every program for the repression of human tuberculosis must take note of tuberculosis in animals. Thus, the eradication of animal tuberculosis becomes a public health measure.

The transmissibility of tuberculosis from animals to human beings is generally admitted. Milk from tuberculous animals is a potential carrier of tuberculosis, whether the udder be infected or not. One tuberculous animal in a herd may contaminate the entire product of a large milk receiving station and distribute tuberculous germs of animal origin to a large number of children.

It is estimated that about 10% of all deaths from tuberculosis in children, under 5 years of age, is due to infection through cows' milk containing tubercle bacilli. Furthermore, about 25% of all cases of tuberculosis in children, under 5 years of age, is due to the bovine species of the tubercle bacillus.

Health authorities have expended a great amount of effort in propaganda to make known to the milk consuming public, the great danger, particularly to children, of using milk derived from sources which do not insure, beyond all doubt, that the milk is uncontaminated with tubercle bacilli. Enforcement measures are in effect in many places, requiring that milk from all sources be subjected to such conditions as to practically guarantee its safety as a food so far as tuberculosis is concerned.

The consumption of milk or milk products, derived from either of the following two sources, is attendant with very little danger.

1—Milk from tuberculin tested cattle.

2—Pasteurized milk (milk which has been heated to at least 146° F for at least one half hour).

Milk not subject to either of the above conditions, is often found to contain the germs of tubercle bacilli.

Meats from tuberculous animals may also be a source of tuberculous infection in human beings.

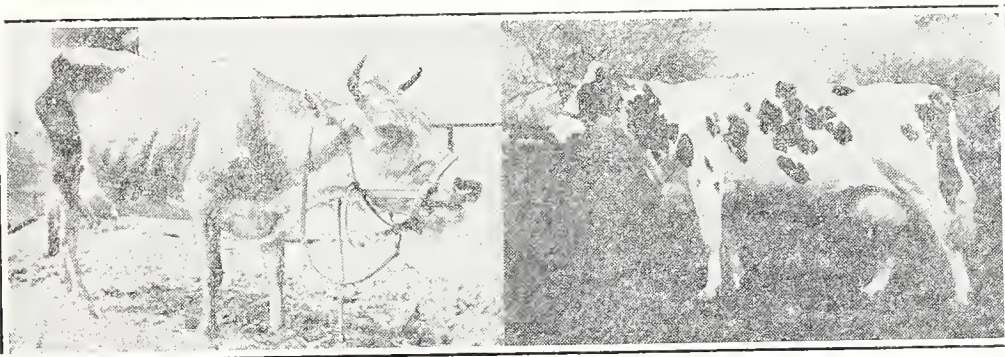
Other dairy products, such as butter, cheese, etc., when prepared from unpasteurized milk from tuberculous animals are also known to contain living tubercle bacilli, and when these products are used for food there is always grave danger (particularly to children) of tuberculous infection.

In view of the relation of animal food products to public health, it is important that every measure to insure their safety should be employed.

Pennsylvania, which ranks second in population in the United States, and third in the value of dairy products, should exercise a supervision, not only over the products themselves, but of the conditions under which all animal food products are produced and handled.

Since the danger of transmission of animal tuberculosis to man is practically confined to the milk and meat supply, such supervision in the production, handling and distribution of these products would constitute an important factor in public health service. There are some who would attempt to solve the problem of milk contamination by pasteurization alone and, while this may be practical under certain conditions, it will never become general nor will it solve the question of bovine tuberculosis.

City ordinances requiring the pasteurization of milk will not prevent the transmission of tuberculosis to the millions of the rural districts and villages.



Tuberculous Cow.

Healthy Cow.

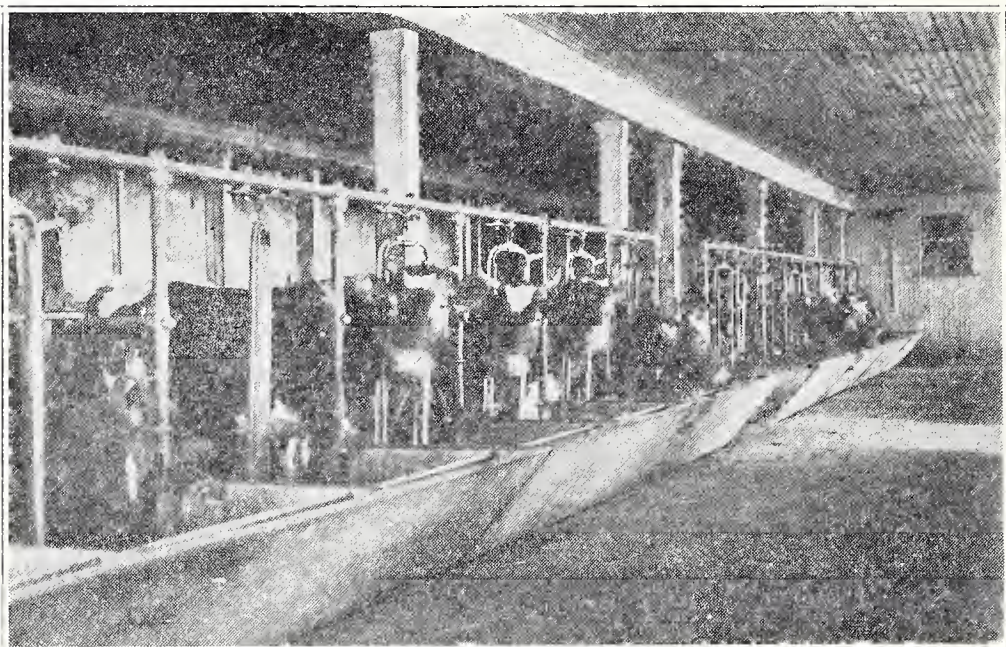
Only when enforced pasteurization, under supervision, is adopted will protection by pasteurization be practical. It has been recommended that no milk of uncertain origin should be consumed without being either pasteurized or boiled. As the application of this suggestion is entirely dependent upon the consumer, it is not and probably never will be carried out.

The better way to prevent transmission of tuberculosis from animals to human beings is to strike at the root of the evil by preventing animals from becoming infected. Every herd of cattle should be tested by the tuberculin test and infected animals should be killed.

The feeding of unpasteurized milk from tuberculous animals to young calves and pigs is a sure way to infect them with tuberculosis.

The activities of the Bureau of Animal Industry, Pennsylvania Department of Agriculture, in the prevention, control and eradication of tuberculosis in cattle may be summarized as follows:—from 1896 to December 1st, 1922, 28,782 herds, comprising 437,765 cattle were tuberculin tested, of which 11,520 animals were condemned, 428,259 imported cattle (brought into Pennsylvania) were examined and tested.—of this number 4,357 were condemned and slaughtered.

Practically all herds examined and tuberculin tested are under the accredited herd plan, which is in operation in every state. In Pennsylvania 2,821 herds, comprising 44,667 cattle are under the accredited herd plan, (a uniform plan for the establishment of tuberculin free, herds of cattle; details will be furnished upon application to the Bureau of Animal Industry, Department of Agriculture, Harrisburg, Pa.) of which 5,185 animals were condemned for tuberculosis. Much of this work has been done in co-operation with municipal health boards.



Sanitary Stable.

The interest of owners and all co-operative agencies has increased each succeeding year to such an extent that funds and personnel for conducting the work are inadequate to meet the demand.

All cattle in several areas, would have been examined and tuberculin tested if adequate funds were provided. We anticipate an examination and tuberculin test of all cattle within one or more counties next year.

The success of the examination for the suppression of animal tuberculosis is dependent, to a great extent, upon the attitude of the public toward the work. Independent work and the efforts of private organizations for the suppression of either animal or human tuberculosis, while helpful in spots, is wasted energy. Medical schools, hospital authorities, health organizations, physicians and nurses should spread the propaganda that human tuberculosis bears a close relationship to bovine tuberculosis. Live stock sanitary officials and veterinarians should be equally active in broadcasting information that the presence of tuberculosis in animals means a menace to human beings.

STATE TUBERCULOSIS CLINICS

by

A. P. Francine, M. D.—Chief, Division of Tuberculosis.

The effort has been made in the administration of this Division:

1. To cut down inexpedient and burdensome expenditure.
2. Thus to save money to enlarge the scope of this service; that is, to carry it to localities that were not being reached as is necessary.
3. To increase the actual working efficiency of the dispensary services.
4. To promote and stimulate extradepartmental effort through antituberculosis and other philanthropic bodies.
5. To stimulate local counties to provide sanatorium accommodations for their own tuberculous sick, particularly the far-advanced cases, near their own homes, through a law enacted by the Legislature of 1921.

1. It appeared clearly inexpedient for the Department to pay rents and certain other charges for its dispensaries, that is, to support entirely a local institution run for local community welfare. A campaign was undertaken to show local communities the part they should bear in furnishing of free quarters for the state clinics and overhead charges like light, heat and janitor service.

It met with uniform success and was accomplished without the closing of a single clinic. This relieved the Department of a monthly overhead charge for rent, etc., which amounted in six months to \$23,809.92. Rents were taken off in 44 dispensaries.

2. This enabled the Department to proceed with the essential work of carrying this service to other communities, with the result that 22 new clinics were opened without overhead charges to the Department. The Department pays the doctors a moderate fee and furnishes supplies: educational (literature), preventive (sputum cups and napkins, and a few simple drugs) and the necessary forms. It also supplies furniture, desk, scales, filing cabinets and chairs, where necessary. These remain state property, and are carefully inventoried in the Division of Supplies.

3. Dispensaries were quite widely inspected and the personnel instructed in exact detail of their work. It is not out of place to add that the chiefs of our clinics are showing a wide interest, not only in tuberculosis work, but in broader aspects of public health work, and are recognized everywhere as most active and successful members of the profession, and most useful in community welfare.

The principle of these state clinics is not static, but dynamic. That is, the effort through the nursing force is continuous to hunt up and get new cases in for examination, education, and sanatorium care; and not alone apparent cases of tuberculosis, but anyone who shows signs of failing health, particularly anemic or run-down children.

This applies only to the indigent or at the request of physicians. There is also a strong effort being made to enlist the active co-operation of the employers of labor.

4. Close touch has been kept with local philanthropic bodies by letter and by personal visits, with the result that these are uniformly giving the Department the heartiest co-operation, not only in referring cases, but in advertising the work, and in many instances helping financially.

5. On account of the overcrowded condition of the sanatoria there was a waiting list of nearly a thousand and it took six to nine months for admission, thus defeating the usefulness of these institutions in the necessary delay for the admission of early favorable cases. It was seen that the principle of local communities, *i. e.*, counties, providing a certain amount of sanatorium care for their tuberculous sick, particularly the far-advanced cases, near their homes was the only solution and the proper one. Pennsylvania with its 2,000 state-controlled beds was much worse off in this relation than the other states which had followed this policy of local care. This principle had inhibited local effort, and no state institution in this country, so far as I know, receives far-advanced cases. By inaugurating the proper policy of not receiving far-advanced cases, which could not be benefited, but would occupy beds for many months, the efficiency of the sanatoria has been enormously increased, and many more children and curable types have been treated in 1921 and 1922 than heretofore. It now takes only from 2 to 3 weeks for the admission of a case.

Mont Alto,	1919	1920*	1921
Patients on hand,	526	675	448
Patients admitted,	1,223	790	956
<hr/>			
Patients treated,Total	1,749	1,465	1,404
Cresson,	1919	1920	1921
Patients on hand,	494	681	663
Patients admitted,	1,310	1,162	1,141
<hr/>			
Patients treated,Total	1,804	1,843	1,804
Hamburg,	1919	1920	1921
Patients on hand,	304	410	435
Patients admitted,	1,230	919	957
<hr/>			
Patients treated,Total	1,534	1,329	1,392

6. The Department introduced a bill providing for a referendum to the people of a county as to whether they wished the county to build and maintain a local institution for tuberculosis. This has met with a very hearty response on the part of the people, and the county commissioners; and of the seven counties submitting this to a vote at a general election all have passed it by large majorities. Five of these counties have already bought sites, and plans are in progress for the erection of model institutions. In two others sites are being selected.

In November, 1922, four other counties voted for sanatoria by large majorities, namely: Schuylkill, Erie, Dauphin, and Westmoreland. This local county hospital plan is the biggest single step in the campaign against tuberculosis since the establishment of this Division.

7. The Department has now 110 state clinics, with prospects of opening five or six in the near future, and this policy will be carried out.

8. The death rate from tuberculosis in all forms has fallen from 151.4 in 1918, 91.6 per hundred thousand in 1921, and for tuberculosis of the lungs from 133.3 in 1918, to 80.0 in 1921.

Morbidity and mortality figures for Pennsylvania are interesting:

	1917	1918	1919	1920	1921
Cases of tuberculosis, all forms reported, ..	11,243	10,115	9,725	8,144	7,083
Deaths from tubercu- losis of the lungs, ..	10,042	11,257	8,971	8,011	7,001

This shows that cases are not being generally reported, as the incidence of the disease as reported is not sufficient to support the yearly mortality. The decline of the death rate from tuberculosis of the lungs during the five-year period 1917-1921, inclusive, has been more pronounced than the decline of other reportable diseases, or the general death rate.

For tuberculosis of the lungs the decline was $33 \frac{1}{3}$ per cent. for all other reportable diseases it was 31 per cent, and for deaths from all causes it was 20 per cent.

*In 1920 a large 200-bed hospital at Mont Alto was closed for lack of funds and subsequently taken over by the United States Veterans' Bureau.

PENNSYLVANIA FREE STATE TUBERCULOSIS SANATORIA

Mont Alto Sanatorium, which is the largest institution for the treatment of tuberculosis in the world, is described elsewhere in this issue.

The Cresson Sanatorium is located in the Allegheny Mountains, Cambria County, on a tract of land which was deeded by Andrew Carnegie to the State of Pennsylvania for the purpose of caring for tuberculous patients. The Sanatorium, which is located at an elevation of 2,530 feet, is built on the hospital plan with numerous long well ventilated corridors, in which the patients recline in comfortable chairs while "taking cure". In addition to this, there is a number of cottages built after the "Dixon" plan. Cresson has a capacity of 720 beds.

The Hamburg Sanatorium, located near Hamburg, Berks County, at an elevation of 540 feet, is built on the hospital plan and has a capacity of 500 beds.

Patients are admitted to the Sanatoria by application to one of the 120 State Tuberculosis Clinics. Those cases which show a fair prospect of arrest and cure, are sent either to Cresson or Mont Alto. Advanced cases are sent to Hamburg.

Patients are required to provide their own transportation to and from the Sanatorium. The care and treatment while in the Sanatorium is absolutely free to all.

Occupational Therapy is an important factor in the treatment of patients at the State Sanatoria. Educational facilities, under the direction of the Department of Public Instruction, is provided for the children.

THE STATE NURSE GOES "A-VISITING"

It had been a busy afternoon at the free State Tuberculosis Clinic, but a State Nurse must never be too tired to be pleasant—so it was a welcoming smile which met the ill-nourished, shabbily clad, Jennie Stone as she timidly sought admission. Re-assured by her kind reception, she sank wearily into a vacant chair in the waiting room, where many, like herself, had come for the first time. Bit by bit she told the nurse the not unusual story of hard work, long hours, poor food and progressive weakness until finally she had to give up her work.

The Clinic Doctor, after a careful examination, told her she had tuberculosis, but not very far-advanced and assured her, if she would follow the directions which he outlined, the disease would in all probability become arrested and her normal strength return. He explained to her how tuberculosis was caused by a germ, that the greatest danger, was to undernourished people, because their resisting power was feeble. He pointed out the things she should do and the things she should not do and advised her to make application for admission to the free State Tuberculosis Sanatorium.

Before she left the nurse gave her a package containing paper napkins, paper bags and sputum cups and told her, she should always carry a supply of paper napkins with her, and when she had occasion to cough and expectorate, she should cover her mouth with a napkin, expectorate into it and then place it in the bag. The sputum cups, which were heavy brown paper affairs made to fit in a man's pocket or a woman's handbag, each containing a pledget of cotton in the bottom to absorb the sputum, were to be used when she was out of the house traveling around. Both sputum cups and paper bags must be burned after use.

She promised Jennie she would call at her house very soon. Next morning, on her daily round of visits, the nurse with difficulty located her patient of the afternoon before.

The address given was Briggs Flats, top floor, Wall Alley, rear of Brown Street. She spent considerable time locating Wall Alley, finally she found an opening answering the description and Briggs Flats loomed tall and gloomy. Passing through a dreary entry way,

the nurse, with the aid of her pocket flash light, climbed the dark stairs in safety. Flight after flight she ascended, until their cessation indicated she had reached the top floor. After unsuccessful attempts at three different doors, the patient was located.

The room, 15 x 15, contained a single half sized window which was closed. The furniture consisted of a bed, in a state of wild disorder, a tumble-down cot and a cradle made of a soap box on rockers, a



State Nurse in uniform.

great arm chair, sole survivor of better days, a home made bench and several small boxes provided the seating accommodations. A rickety table and a badly warped range, supported at three of its corners by broken bricks, completed the major furnishings. An alcove in the

wall, over which was stretched a tattered muslin screen, served as a cupboard for the scanty equipment of table ware and a storing place for the meagre food supply. The accessory outfit of pots, pans and cracked dishes were piled on the stove or thrust away in convenient corners or angles of the room.

When the nurse entered, Jenny was engaged in feeding the baby from a bottle, which bore strong suspicion of not having been recently washed. Two small children were interestedly and somewhat enviously, watching the operation. Jenny said her mother was away at work, scrubbing floors, and the two other children were at school.

Here was a case which required the exercise, to the utmost, of the tact and resourcefulness which comes to the State Nurse only from service and experience—a family of seven, dependent entirely upon the pittance brought in by a hard working woman, all of the family undernourished, living in unhygienic conditions and one of them, at least, a victim of tuberculosis.

The nurse asked when she might be able to see Mrs. Stone. Jenny said her mother's work kept her out all day and she never came home until after six o'clock in the evening.

Inquiry concerning the baby's milk brought out, that they had been using canned milk because it was the cheapest.

The nurse asked Jenny if she remembered what the Doctor told her about conveying her disease to other persons, particularly to the members of her own family. Jenny remembered and said she was as careful as possible. The nurse selected a few dishes from the family store and told Jenny to set them aside for herself, that she might eat with the rest of the family but she should use her own dishes and after using them, they should be boiled in a separate pan and kept by themselves until used again. She told her that fresh air was needed by the entire household and showed her how to fix the window so that they might have free ventilation.

She then re-arranged their sleeping plans so that Jenny might have the cot and sleep alone. She told Jenny that for the baby's safety, it was necessary not only that the nursing bottle be clean, but that it should be boiled before using, and in order that there might be no doubt about it, she gave her a practical demonstration as to how it should be done. Before going to visit any other patients, the nurse called up the Welfare Society and made a temporary arrangement for the sending of three quarts of milk daily to the Stone household for the use of the baby, Jenny and the other children.

The nurse next called upon the Wards. She had promised Bobby a pup and beside, she wanted to be sure the baby was getting the milk supply she had ordered. Except that the Wards lived in a basement, their circumstances and living conditions ran nearly parallel to the Stones. The father in jail, the mother scrubbing floors

all day and two little boys at home to care for the baby, so the State Nurse, who is housekeeper, welfare worker, Santa Claus and nurse all rolled into one, went from place to place, here bathing a baby, there cooking a meal and again perhaps, scrubbing the floor, always bringing cheer and help and comfort—and so she goes her daily rounds.



The Ward Home.

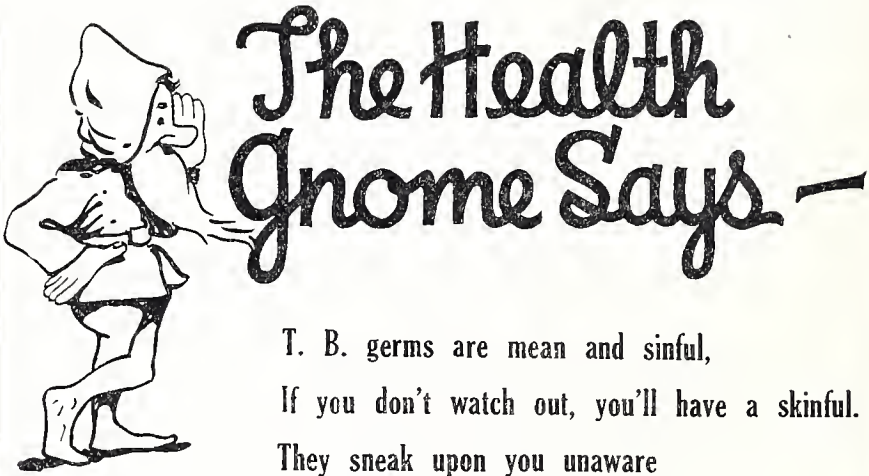
When she re-visited the Stone family, she found the mother at home. Mrs. Stone, while appreciative of the milk supply, which had been sent by the Welfare Organization, was inclined to resent outside interference in the management of her household affairs.

When the nurse suggested that, for the safety of her children, as well as the opportunity for her daughter, that Jenny be sent to the free Sanatorium for Tuberculosis, she made strenuous objections. By tactful argument the nurse at last succeeded in obtaining reluctant consent for Jennie to go. This, however, was only a partial victory. The family still lived amid bad hygienic surroundings, was undernourished, with low resisting power and liable to contract tuberculosis.

The nurse was able to persuade the mother to send all of the children to the Clinic for examination. She made application for aid to the Mothers' Assistance Fund and referred the condition of the tenement house to the Bureau of Housing. Even with the correction of the building, she felt that more desirable quarters were needed for the Stone family. She helped the mother to find better rooms and arranged with her employers that Mrs. Stone might go home in the

middle of the day to give the children attending school, the necessary attention. She also arranged with the Day Nursery in the neighborhood, to look after the smaller children. She made out a plan of diet, with a list of foods obtainable within the family income. She had the dental defects of the children corrected at the Dental Clinic.

When the notice came, setting the day for Jenny's departure to the Sanatorium, the nurse met her at the station, secured her ticket and sent her on her way to Mont Alto, filled with hope and confidence that within a short time, she would return to her home with renewed strength to enjoy, with the rest of the family, the wonderful changes, which in their lives was an epoch, but to the nurse a mere incident of the daily routine.



T. B. germs are mean and sinful,
If you don't watch out, you'll have a skinful.
They sneak upon you unaware
But cant stand sunshine and fresh air.

HELIO THERAPY AT CRESSON

By W. G. Turnbull, M. D.

Director, Cresson, Pa. Free State Tuberculosis Sanatorium.

Plants deprived of sunlight grow pale, sicken and die. Animals raised in dark places do not attain normal strength or development. Just how much does the lack of sunshine and the failure to expose the skin to the air have to do with making children sick, and how much can sick children be helped by properly regulated doses of sunshine and air exposure?

This is one of the questions for which an answer is being sought at the Pennsylvania State Sanatorium at Cresson. Two hundred and twenty-five children between the ages of six and sixteen are being cared for in the Institution.

About one-fifth of these children are suffering from active tuberculosis. The remaining four-fifths are of the type usually seen in

Sanatoria for children and variously classed as "incipient", "pre-tuberculous suspects" or "contacts". They are underweight, under-nourished, anemic, with more or less glandular enlargement, and a tendency to irregularities of temperature. They are the type with which we are all too familiar outside Sanatoria and of which every school room furnishes too many examples.

For six years the children in this Institution were treated by ordinary methods. They were encouraged to remain as much as possible in the open air, but no effort was made to increase air or sun exposure beyond this point.

Three years ago it was decided to try the sun treatment on the children, the so-called heliotherapy.

In applying this treatment a special class was made of the sick children and those having surgical complications. These were placed on blankets on the lawn under the care of a nurse. Their exposure to the sun was regulated according to the principles laid down by Rollier, the feet alone being exposed for fifteen minutes the first day, the time of exposure and the area exposed being increased from day to day. After exposure of the entire naked body was secured, a maximum of three hours' exposure daily was decided upon, this being divided into two periods of not over one and one-half hours each. The nurse was held strictly responsible for avoiding sunburn.

The results from this treatment have been extremely encouraging.

The treatment of the larger class of ambulatory children has been of greater interest to the visitors to the Institution. From the first it seemed inadvisable to restrict normal activity or to interfere with school work to the extent necessary for carrying out complete heliotherapy with these children. A modified form of treatment was therefore adopted. The boys were dressed in the lightest cotton bathing suits that could be procured. For the girls a loose fitting one piece bifurcated garment was made reaching from the point of the shoulder blade to the middle of the thigh, and held up by narrow shoulder straps. Shoes, stockings and underclothes were discarded. These suits were worn constantly at school and at play. The children remained out of doors during rainstorms as well as during the sunshine, no attention being paid to the wetness of their scanty clothing.

While it is inadvisable to be too positive as to the relations between cause and effect, it is the opinion of those who have been handling the children for the past nine years that they have never done so well or improved as rapidly as they have during the past three years. It is certain they have never been as happy or looked as well.

The filling out of wasted arm and shoulder muscles, and the disappearance of glandular enlargements have been two of the marked results of this treatment. During the period of sun treatment the children have enjoyed remarkable freedom from ordinary colds and nasal infections in spite of their exposure to all sorts of weather

and utter disregard of wet clothing. Their eyes have seemed brighter, their vitality greater, their appetite better, their sleep sounder, and their improvement more rapid than ever before.

Unfortunately it is impossible for heliotherapy to be carried out in this climate during the Winter months. No better proof of the results of this treatment can be secured, than from the change of sentiment in the children's department as to the benefits from Summer or Winter treatment. It was formerly an axiom in the Institution that one Winter was worth two Summers. Since the introduction of heliotherapy the approach of Winter with its clothing and its colds is looked upon with dread.

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CONTENTS

<i>Pennsylvania's War on Flies</i> - - - - -	1-5
<i>Tenement House Improvement in Pennsylvania</i> - - - - -	6-9
<i>Department Changes</i> - - - - -	9
<i>Why Physicians and Boards of Health should Co-operate</i> - - - - -	9-11
<i>The Calf-Path</i> - - - - -	11-13
<i>Temporary School Exclusion of Pupils Showing Symptoms of Contagious Disease</i> - -	13-14
<i>Septic Tanks</i> - - - - -	14-16
<i>Venereal Disease Prevention</i> - - - - -	16-18
<i>Health in the Kindergarten</i> - - - - -	18-23
<i>Names and Addresses of County Medical Directors</i> - - - - -	24-27

*"You are old, Father William," the young man cried;
"The few locks which are left you are gray;
You are hale, Father William, a hearty old man;
Now tell me the reason, I pray!"*

*"In the days of my youth," Father William replied,
"I remember'd that, youth would fly fast,
And abused not my health and my vigor at first,
That I never might need them at last."*

ROBERT SOUTHEY

PENNSYLVANIA'S WAR ON FLIES

One May morning in the year 1919, the Commissioner of Health, recently released from military service (where flies were few) very casually remarked to the Chief of the Division of Public Health Education, who had also observed the scarcity of flies in army camps, "We must rid Pennsylvania of flies and it's your job."

Accordingly plans were made—the easiest part of any undertaking is—making plans. Given a sharpened pencil—plenty of paper and a reasonably vigorous imagination and plans, for the reconstruction of the Universe, if need arise, will flow and spread like freshets of early spring. But, as one Robert Burns observed:—

"The best laid schemes o' mice an' men, Gang aft agley."

Desk made theories, however brilliant are prone at times to weaken and fade under the stress of practical application and it was early discovered there was something lacking in our elaborately prepared program for the extermination of flies.

In the first place—there was a marked difference in the aftermath, between a military command given to soldiers and a polite request (backed by however much sage counsel) extended to a citizen body.

Next, in many sections of the State there was found to exist (to put it mildly) a lamentable "deficiency of information" as to the danger from the house fly.

In some instances aside from their annoying invasion of Grandpa's bald head and their dogged persistence in dropping into the soup, they appeared to be regarded as Heaven sent blessings—scavengers of filth and guardians against evil.

We were without educational literature and the fly season was already upon us. And so, when we found the plans wouldn't work out, we scrapped them and started in to learn our job.

For a number of years a committee of the Civic Club of Harrisburg had been waging a hopeful, if ineffectual warfare against flies, by paying a certain price per quart for dead ones.

The resultant reduction of the fly population by so many bushels each summer was perhaps helpful, but did not in any wise retard the remaining flies from raising large and energetic families. Race suicide has no part in the ethics of fly life. However, as the existing committee was made up of earnest, through-going women, we decided to make them the official fly campaign team, the State Department of Health aiding and supporting.

The municipal authorities readily agreed to co-operate, the local ordinances were sufficiently drastic to rid the city of flies, if enforced, but shortage of funds prevented the appointment of the inspectors necessary to ferret out and get rid of the fly breeding places.

Six inspectors from the Engineering Division of the State Department of Health, were accordingly detailed and sworn in for city duty to make a complete inspection of Harrisburg. Every stable owner was

At the close of the summer inspectors again made a tour of the city, this time to ask the lawyer, the doctor, the baker, the grocery-man, the housewife, "How did the flies of this summer compare as to numbers with previous summers?" The sum of several thousands of answers was: "There was a reduction of 75%."

The next year, 1920, the first state wide fly campaign was launched.

The progress of the state wide fly campaign of three summers is not within the scope of this article. It does, however, seem fitting to announce the conclusion arrived at. This may be stated in a few words—

IT CAN BE DONE

And now is the time to begin.

Don't wait until the fly season is on but start now.

Get your team together for the spring CLEAN UP.

As to literature, "The Life Story of a Fly" and "The Plague of Flies" can be obtained on application to "The Listening Post." So can the "Outline for the conduct of a fly campaign." The posters shown in the illustrations and known as numbers one, two, three, and four, are prepared by the Pennsylvania Department of Health; in size they are 14" x 12½" and are also issued free upon application.

As soon as you have organized your committee, get in touch with your local Board of Health. You not only need their backing but their co-operation. Send the names of your officers to the "Listening Post," Pennsylvania Department of Health. We want to keep in touch with every fly campaign committee and stand ready to help so far as we are able.

Flies hatch from eggs. They cannot mature unless three conditions be present—WARMTH, MOISTURE and FOOD. All of these are found in manure heaps and decaying matter.



Fly Poster No. 2.

If the Board of Health happen not to have sufficient funds to employ an inspector, perhaps some local welfare society may provide for the expenses. Considering the good accomplished, the amount necessary is surprisingly small.

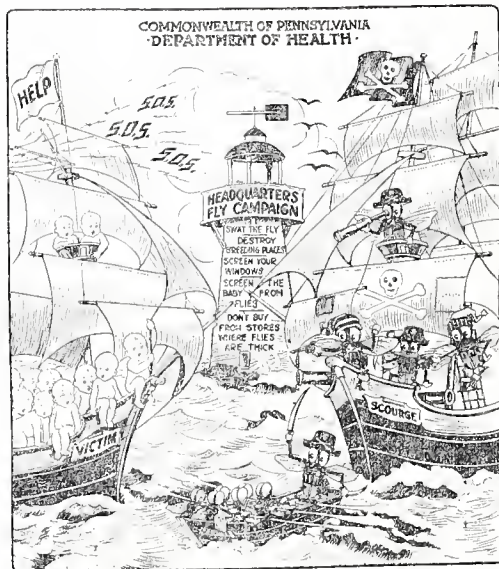
One town of 5,000 in Pennsylvania was inspected by the local policeman, who divided it into six sections. It took an hour to inspect each section and by taking one a day, he made the rounds every week.

After general interest has been aroused by proper publicity, once in two weeks is often enough for a sanitary inspection. This means ten or twelve inspections during a summer.

One man can inspect a town of 5,000 in a day. Twelve days at \$3.00 amounts to \$36.00.

Inspection must be followed by ENFORCEMENT. A well advertised arrest for violation of the health regulations, causes more unhappiness in fly land than a barrel of fly swatters, but swatters are good things to have. They not only reduce the fly population, but provide a pleasing diversion for unoccupied persons.

Almost any day last summer, had you stopped at a certain well patronized road side Inn, less than a thousand miles from Harrisburg, you would have found the guests all armed with fly swatters. It did not appear good form to be without one, and your heart would have been gladdened to note the spirit of friendly rivalry which prevailed among those enthusiastic fly hunters as they exultantly compared the numbers of their kills, while the complacent host beamed benevolent approval.



Fly Poster No. 3.

As there are few better means of advertising than the handle of the fly swatter, it is usually an easy matter to induce the business interests of any town to contribute swatters free of charge.

All municipalities should have ordinances protective against flies, but the regulations of the State Department of Health are applicable to the entire State regardless of ordinances.

The advantage of re-enacting Department regulations into ordinance is, that accruing fines for violations go to the municipality, otherwise they revert to the county.

The following is a brief summary of the provisions of the State Laws and Department Regulations. Complete text will be furnished upon application—

Fruit and vegetables exposed for sale must be screened and elevated two feet above the side walk.

Privies and cess pools must be fly tight and may not overflow.

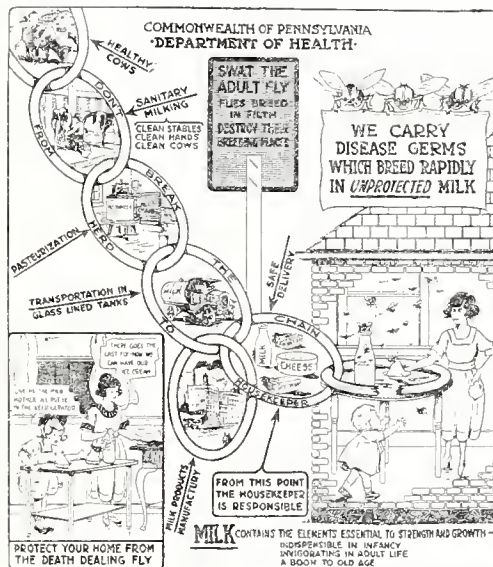
Contents of privies and cess pools shall not be used within corporate limits or within 700 feet of any habitation unless subjected to treatment.

Garbage and offal may not be thrown in gutters, streets or ravines or remain exposed on the surface of the ground.

Pig Sties shall not be maintained within 300 feet of an inhabited house on an adjoining property.

Manure may not be allowed to accumulate where it may be a source of fly breeding.

Violation of Rulings of the State Department of Health are punishable by \$100 fine or imprisonment of one month or both.



Fly Poster No. 4.

To sum up—the main points of a successful fly campaign are PUBLICITY—EDUCATION—and DESTRUCTION of BREEDING PLACES—to accomplish which are necessary TEAM WORK with continuous and persistent EFFORT and rigid ENFORCEMENT of fly prevention ORDINANCES, LAWS and REGULATIONS.

TENEMENT HOUSE IMPROVEMENT IN PENNSYLVANIA

BY

JOHN MOLITOR, Architect, Chief, Bureau of Housing.

A housing problem exists wherever any portion of a population dwells under conditions dangerous to health, safety or morality. The problem is present to some degree in every community. It is occasioned primarily by lack of guidance of city growth, by poor planning of buildings, faulty construction and defective sanitation. It is aggravated by the greed of some landlords, the carelessness of some tenants, and ignorance of the laws of hygiene by both.

The result of bad housing is ill health, both physical and moral, and thereby industrial inefficiency, and a long chain of preventable social maladies, which place a heavy handicap upon individual, social and community development.

A healthy, strong, and vigorous body of citizens is a most valuable asset to any community. The individual is the unit which must be kept clean, strong and well. Collectively, individuals form the community and a union of communities constitutes a nation, therefore, if we are desirous of building up a nation to a high standard of efficiency, we must take an interest in our home and the homes of others in the community.

Investigations of housing conditions throughout the State by the Bureau of Housing have revealed the fact that you can not always judge a building by fine outside appearance. Often a tenement house has all appearance of being a well built structure, but a look into the interior arrangement shows that no thought has been given to the adequate lighting and ventilating of inside rooms.

The following photographs and diagrams show a few examples of poor arrangement and the alterations made, after orders were issued to the owner by the Bureau of Housing to correct the unsatisfactory conditions.

This tenement house contained forty dark and unventilated rooms arranged as shown by shaded areas in Diagram B, before alterations were made as shown in Diagram C.

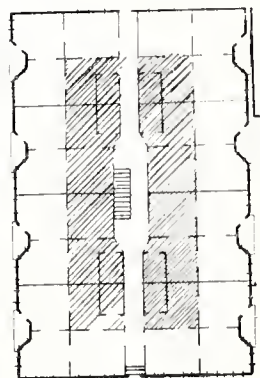


DIAGRAM B
FIRST AND SECOND FLOOR
BEFORE

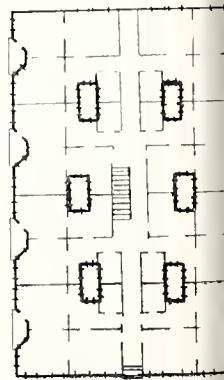


DIAGRAM C
FIRST AND SECOND FLOOR
AFTER

This tenement house contained twenty-four dark and unventilated rooms arranged as shown by shaded areas in Diagrams E and G, before alterations were made as shown in Diagrams F. and H.

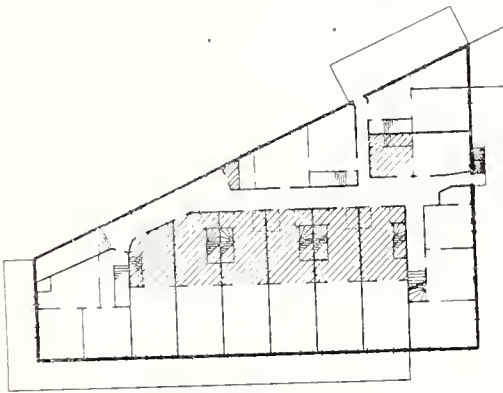


DIAGRAM G
SECOND FLOOR PLAN
BEFORE

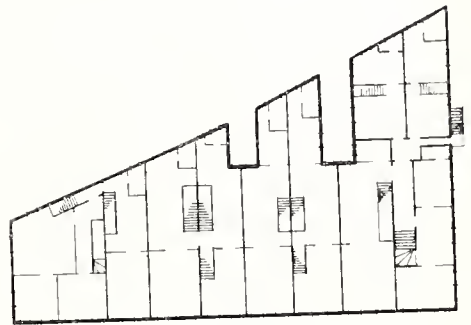


DIAGRAM F
SECOND FLOOR PLAN
AFTER

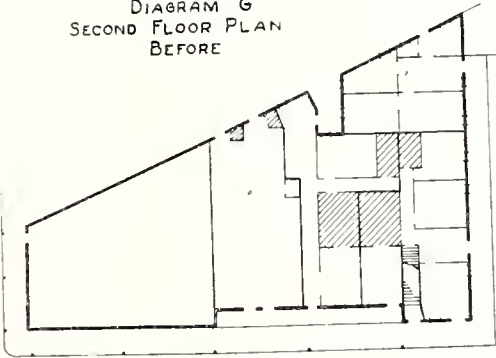


DIAGRAM E
FIRST FLOOR PLAN
BEFORE

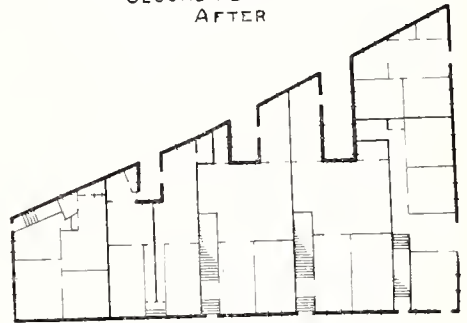


DIAGRAM H
FIRST FLOOR PLAN
AFTER

County Medical Directors, health officers, district nurses and other health workers in pursuance of their duties should note any condition of a tenement, lodging or boarding house which is unsatisfactory and report same with data to the Bureau of Housing for correction. Under the Act of July 24, 1913, the Bureau of Housing is given the power to correct insanitary conditions in tenement, lodging and boarding houses.

Those who report existing insanitary conditions in such buildings are not only rendering a service to their own community, but also to their State. Every action by the individual in relation to the betterment of housing conditions, is a movement toward the establishment of the elements of personal character, of industry, and of co-operation and enterprise which are essential to a progressive and enlightened citizenship.

DEPARTMENT CHANGES

Colonel Edward Martin, Commissioner of Health, presented his resignation to Governor Sproul to take effect January 16th. Colonel John D. McLean, Deputy, has been appointed Acting Commissioner by Governor Pinchot.

Dr. Thomas W. Jackson, Assistant to the Commissioner of Health, has obtained a year's leave of absence from the Department and will occupy the position of Staff Physician for the Brazilian operations of the Dwight P. Robinson Company, Incorporated.

James F. McCoy, late private secretary to Governor William C. Sproul, has resumed his place of executive secretary for the Pennsylvania Department of Health. During the absence of Mr. McCoy the position of executive secretary was filled by Clinton T. Williams, Chief of the Division of Accounts.

WHY PHYSICIANS AND BOARDS OF HEALTH SHOULD CO-OPERATE.

By Dr. C. P. Stahr.

There are nine hundred and ninety-nine reasons why Physicians should co-operate with Boards of Health and not one why they should not. The fundamental reason for co-operation is, that they have the same objective.

Boards of Health are created for the prevention of disease and the conservation of health. The aim and purpose of modern medicine is just that, and therefore the members of the medical profession, to be true to their high calling, must be the leaders in what has come to be recognized as the most important, most vital sphere of the profession's activity, "preventive medicine" as it is called.

The physician today who does not do all in his power to prevent the incidence and check the spread of disease, who does not support and contribute to all efforts of Health Departments, local, state and national, in the education of the people, along the lines of the conservation of health, is not living up to the ideals of the medical profession.

It can truthfully be said that all the work of a Board of Health is educative. If we establish quarantine, abate a nuisance, improve a water or a milk supply, we are educating the public in health matters. We may be forced to prosecute John Jones for expectorating

on the side walk, for violating the quarantine laws, for maintaining a public nuisance, for selling milk with low butter fat and in so doing punish him, but there is an educational effect from this prosecution in addition to the mere punishment. A Board of Health has a perfect right to look to the medical profession for support, assistance and co-operation, that the influence of the educational factor may be more far-reaching.

When we ask ourselves the question, "Do Boards of Health have and enjoy the co-operation of the medical profession?" I am afraid we have to admit that there is some ground for argument.

Even though as we have seen, The Public Health Service, our State Department of Health and our Local Boards of Health are actuated, by the same motives that have won for the medical profession the admiration and respect it enjoys today; is it not unfortunately true that the much desired co-operation is often times conspicuous by its absence?

Granted that we are right when we state that the primary object of the various activities of a Board of Health is educational and that we are fair in our assumption that the members of the medical profession are also educators to a great degree and along the same lines, let us see what proper co-operation, between these two educators, can and will do toward helping the work of a Board of Health.

First—Quarantine.

Quarantine, the Health Officer's bugaboo. Isn't it a fact that if people really knew the significance of the contagious disease placard, they would resent the visit of the Health Officer far less?

Education again, people must be taught that the sign on their house means more than a certain amount of inconvenience to them.

When people understand that the placard is put up as an aid toward preventing disease, as a protection to their friends and neighbors, the opposition to the same and their resentment to the established quarantine is bound to fade.

Here is where proper co-operation of the family physician comes in. A simple, fair, explanation of the real reason for quarantine is what we ought to expect from the family doctor. Do we always enjoy co-operation here, I am afraid not.

How much easier and more satisfactory will be our control of diphtheria, if the necessity for exclusion from school and public places, if bacteria carriers and all possible carriers, were brought to the attention of people by their physician.

Failure to report cases of communicable diseases on the part of physicians is rare we believe, but it would never happen if our doctors kept the educational idea always in mind. Why should it be left to the health authorities to exclude wage earners from their work in certain cases? The physician should prepare the family for what he knows to be right and just and if this were done the visit of the health officer would be far more pleasant to him and less of a jar to the family. Especially true is this when we have an outbreak, say of

diphtheria, in the family of a dairyman or dairy farmer. Recently there was an outbreak of diphtheria at the University and in Charlottesville, Va. This outbreak was traced to a dairy where the milk bottles were capped by hand. One of the men doing the work who had had a sore throat, never examined or treated, frequently wetted his fingers to separate the caps. Cultures from his throat showed bacilli. Diphtheria developed in homes supplied by the dairy and twenty-six carriers were found.

Too often the health officers have to bear the brunt of shutting from market products of a dairy on account of the incidence of a communicable disease in families on the premises, when a few words from the family doctor would relieve the situation and the danger would be removed with less of a jar to all parties interested. The case just stated is a grand argument for the periodic medical inspection of all employees handling food stuffs. "Bosh!" Some of our restaurant proprietors may say, but let his doctor tell him otherwise and he follows willingly and becomes anxious to get his establishment in line with what a few words from his medical authority have convinced him is for the protection of his own business.

NUISANCES IN GENERAL

How much opposition would there be to the efforts of a Board of Health to better general sanitary conditions of a town if the medical profession stood firmly back of them and preached constantly of a clean town, a healthy town. How long would insanitary privy vaults, uncovered manure piles, fly breeders of all descriptions exist if the medical profession and Board of Health were co-operating in their efforts to get rid of them? We have great faith in the power of the voice of the medical profession. The physician is looked up to in his community and we need his influence, his interest, his co-operation, because he stands for just what Boards of Health are working.

HEALTH CAMPAIGNS

Health campaigns are becoming more popular every day. The people are getting awake to what conservation of Health means—"Swat the Fly," "Clean Up Week," "Anti Tuberculosis drives," nutrition classes all receive the indorsement of Boards of Health and medical societies alike. Surely co-operation between the two would mean greater success, more accomplished and a happier, stronger community.

Remember it makes no difference which of the two starts a movement along these lines. What we need is the shoulders of both against the wheel, and the public will be unable to resist that push.

MILK SUPPLY

Who knows better than the up-to-date physician what clean wholesome milk means to a community? He has the babies to feed, the sick to attend, and he wants, for his patients and for himself, milk which he knows is right.

He probably numbers among his patients dairymen from whose dairies he would not care to get his own family's milk supply. Here again the physician can be an educator. The milk supply of any community or town can be just what the people demand, just what they are satisfied with. Let the standard be high and the dairymen will come up to that standard, let the community be indifferent and the dairymen will be also indifferent.

Physicians know what milk ought to be, Boards of Health know also, for they have the high standard of the State Department of Health to guide them. Let both co-operate in educating the people. This done, the battle is won, for the dairyman needs customers or out of business he goes, and if he can't educate himself in proper milk production, if he can't be clean, if he can't meet the demands of the public and the requirements of the Board of Health, the sooner he goes out of the milk business, the better for the babies and adults sick or well of that community.

Let us strive for the ideal, the medical profession and the Board of Health of the community, hand in hand, shoulder to shoulder, voices blended for general health education, which is the real business of a Board of Health.

May we ask the medical profession at least, in the words of a sport writer of a Philadelphia paper, "If you can't boost, don't knock."

THE CALF-PATH

One day through the primeval wood
A calf walked home as good calves should :

But made a trail all bent askew,
A crooked trail as all calves do.

Since then three hundred years have fled,
And I infer the calf is dead.

But still he left behind his trail,
And thereby hangs my moral tale.

The trail was taken up next day
By a lone dog that passed that way :

And then a wise bell-wether sheep
Pursued the trail o'er vale and steep,

And drew the flock behind him, too,
As good bell-wethers always do.

And from that day, o'er hill and glade,
Through those old woods a path was made.

And many men wound in and out,
And dodged and turned and bent about.

And uttered words of righteous wrath
Because 'twas such a crooked path ;

But still they followed—do not laugh—
The first migrations of that calf,

And through this winding wood-way stalked
Because he wobbled when he walked.

This forest path became a lane,
That bent and turned and turned again;

This crooked lane became a road,
Where many a poor horse with his load

Toiled on beneath the burning sun,
And traveled some three miles in one.

And thus a century and a half
They trod the footsteps of that calf.

The years passed on in swiftmess fleet,
The road became a village street;

And this, before men were aware,
A city's crowded thoroughfare.

And soon the central street was this
Of a renowned metropolis;

And men two centuries and a half
Trod in the footsteps of that calf.

Each day a hundred thousand rout
Followed this zigzag calf about

And o'er his crooked journey went
The traffic of a continent.

A hundred thousand men were led
By one calf near three centuries dead.

They followed still his crooked way,
And lost one hundred years a day;

For thus such reverence is lent
To well-established precedent.

A moral lesson this might teach
Were I ordained and called to preach;

For men are prone to go it blind
Along the calf-paths of the mind,

And work away from sun to sun
To do what other men have done.

They follow in the beaten track,
And out and in, and forth and back,

And still their devious course pursue,
To keep the path that others do.

They keep the path a sacred groove,
Along which all their lives they move;

But how the wise old wood-gods laugh,
Who saw the first primeval calf.

Ah, many things this tale might teach—
But I am not ordained to preach.

Sam. Walter Foss.

TEMPORARY SCHOOL EXCLUSION OF PUPILS SHOWING SYMPTOMS OF CONTAGIOUS DISEASE.

Under the provisions of the Act of July 17, 1919, teachers are required to promptly exclude pupils showing symptoms suggestive of communicable disease. Pupils thus excluded in cities, boroughs, and first-class townships cannot be re-admitted to school unless they present a report from the official board of health physician, certifying that they are free from contagion or infection.

If the excluded child be found by the board of health physician to be affected with a communicable disease, the case must be placed under quarantine and the pupil will be readmitted to school upon the presentation of the health officer's release from quarantine.

In the latter case the board of health physician shall also report to the teacher, advising that the child is found to be suffering with a quarantinable disease. Said report shall always be returned to the teacher within forty-eight hours. Otherwise the teacher is obliged to report the case to the attendance officer for action under the provisions of the Compulsory Attendance Law.

The very closest co-operation should be obtained between teachers, attendance officers, and boards of health, in order to avoid the spread of communicable disease through the medium of the public school. Such co-operation will insure a higher percentage of school attendance and save the community money in doctor bills.

The school Health Division of the Department of Health has provided a sample form for use of school teachers in carrying out the provisions of the law on this subject. This form contains a detachable notice to be sent to the health officer, with the board of health physician's report blank on the reverse. Samples of this notice (form BH) may be obtained by addressing the Department. Local boards of health or school boards should have their own notices printed in conformity with this sample.

A special notice, form 43, is provided by the Department for use in second-class townships of the Commonwealth. In these districts, teachers are required to refer children to the family physician, there being no board of health in such districts.

The following form, which can be obtained upon application, is to be used by a board of health physicians of **BOROUGHs**.

Form BH 2

BOARD OF HEALTH PHYSICIAN'S REPORT

To be Returned to the Teacher Within Forty-Eight Hours.

To the Principal or Teacher:

This certifies that I have examined.....

Age....., residing at.....

and find him or her { *suffering from....., a contagious or
 quarantinable disease. (name of disease)
 *free from any contagious or infectious disease or condition
 transmissible to others.

**Strike out statement not applicable.*

M. D.

Board of Health Physician.

.....19..... Address.....

If quarantined, the health officer's certificate of release from quarantine is required for re-admission to school.

In cases of trachoma, pink eye, tonsilitis, scabies, impetigo, ringworm, head lice, favus, or lupus, the pupil will be re-admitted upon a physician's certificate attesting to recovery and freedom from contagion or infection.

Sec. 9. (Act of July 17, 1919). Every teacher, principal, superintendent, or other person or persons in charge of any public, private, parochial, Sunday, or other school having in any such school any child or person showing an unusual rash or skin eruption, or complaining of soreness in the throat, or having symptoms of whooping cough, or any disease of the eye, shall immediately exclude such child or other person from the schools pending the action of the health authorities, and shall report such fact to the health officer of the city, borough, or township, giving the name and residence of such child.

Section twenty-six of the same act provides that any physician, teacher, principal, parent or guardian, or other person who shall fail, neglect, or refuse to comply with any provisions of this act,—shall be subject to a fine of not less than twenty dollars nor more than one hundred dollars or imprisonment of from ten to thirty days.

SEPTIC TANKS

By W. L. Stevenson, Chief, Engineering Division

Sewage is the spent water supply made dirty by use.

It contains feces, urine, fragments of waste food from kitchen sinks, soap, etc. In perfectly fresh sewage most of the fecal matter and fragments of food are in a solid undissolved condition. But when sewage has flowed long distances through sewers or is retained for several hours in a tank part of these solids become dissolved.

Usually the first step in all methods of purifying sewage is the separation of the solid undissolved particles from the liquid. This can be accomplished in a properly designed tank having a capacity that it can hold several hours' flow of the sewage. A typical design is shown in the cut.

Most of the solids settle to the bottom of the tank and form a watery mass called "sludge" which from time to time must be removed and disposed of in a sanitary manner similar to that required of night soil from privies and cesspools.

The liquid flowing from a septic tank contains all the dissolved matters present in the sewage entering the tank and in addition all the solids which have been dissolved while the sewage remained in the tank in contact with the decomposing sludge.

As the greater part of these dissolved solids are organic waste matter, they are highly decomposable and become very offensive, unless proper precautions are taken for the disposal of the effluent liquid.

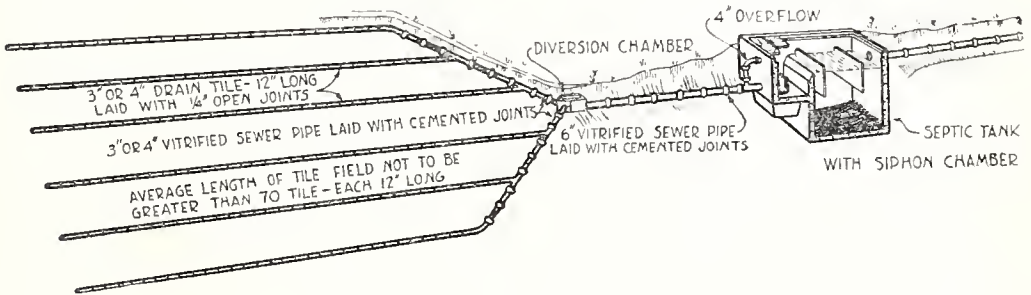
Of even more importance are the disease germs which may be contained in a liquid from a septic tank. It is a well-known fact that the excreta of persons suffering from typhoid fever and other intestinal diseases contain the germs which are the cause of such diseases. Also persons who do not show any outward manifestations of these diseases may harbor the germs in their system and at times discharge them. There is, therefore, always the possible danger that sewage may contain these disease producing germs.

Contrary to popular belief these germs are not completely destroyed in a septic tank but do pass out of the tank in the liquid effluent.

The effluent of a septic tank if not properly disposed of may, in addition to creating a nuisance, become a serious menace to the public health. Hence, it should never be discharged upon the surface of the ground, into a gutter or a dry ditch.

In small installations a satisfactory method of disposing of the effluent is through its dispersion in the upper layers of the soil by means of a system of open joint agricultural tile.

A site must be selected where such disposal will not endanger any water, well or other source of drinking water. The effluent of the septic tank should be collected in a small tank containing an automatic syphon which discharges the liquid into the tiles. A typical design is shown in the cut.



The total length of tile used depends on the volume of sewage to be handled and the perviousness of the soil.

For example, a loose sandy soil will require about forty lineal feet of tile for each person whose sewage is tributary to the tank, while a denser loamy soil may require 75 or 100 feet of tile. Clay or other impervious soils are unsuitable for the purpose because the liquid cannot percolate away.

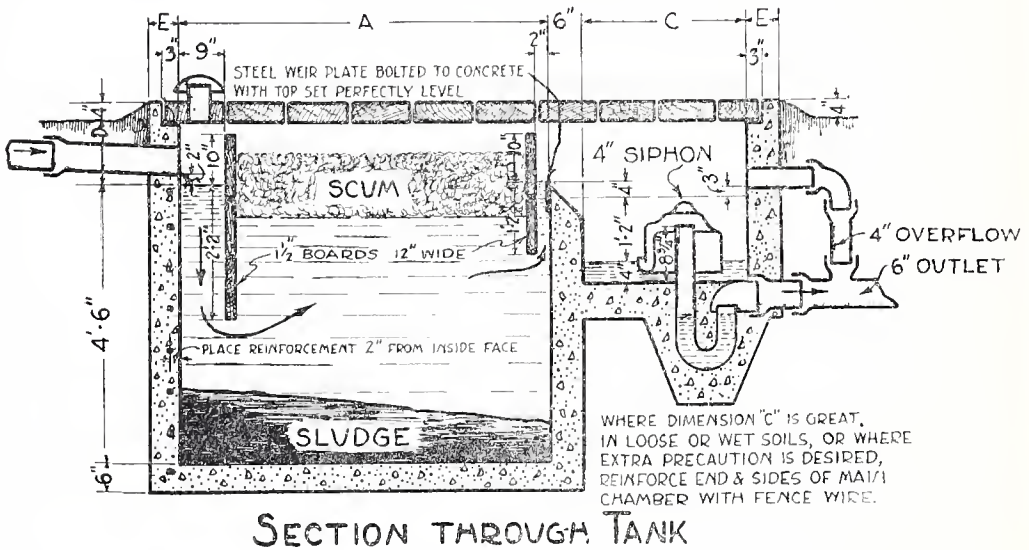
The tiles should be laid on a descending grade of about 2 inches per 100 feet.

Septic tanks are sometimes proposed for use within the built-up portions of towns. This is generally a mistake.

It is unwise to collect and dispose of human excreta on land adjacent to dwellings.

The collection and disposal of sewage in a municipality is a public function and should be accomplished by means of a public sewer system.

The cost is ultimately cheaper than the individual installations on private property and with the public sewer system the individual property owner is at no annual expense.



The useful field of the small septic tank and subsurface irrigation field is in the rural district where sewers are impracticable because of the long distances between the various dwelling houses.

VENEREAL DISEASE PREVENTION

By Dr. E. S. Everhart, Associate Director,
Genito-Urinary Division.

The work of venereal disease control received a tremendous impetus during the World War when it was learned that for every man who contracted venereal disease while in the Service with a venereal disease contracted in civilian life. Following the lead of the Federal Government, the States adopted an anti-venereal disease campaign. Pennsylvania has gradually developed a comprehensive program which includes medical, educational and law enforcement measures. The State has under its control, 53 Genito-Urinary clinics. In addition, there are 153 hospital clinics where patients are treated either free or for a nominal fee. In the State clinics indigent patients are treated until they are rendered non-infectious or cured. The doctors associated with the State clinics act, as educators in their communities, by addressing bodies of men and women including business and church organizations. A vast amount of educational work is now carried on. Communities are stimulated to adopt measures to eradicate bawdy houses and diminish prosti-

tution, as practiced, by other means. The authority given to the medical personnel of the State Department of Health allows them to institute quarantine measures when necessary. The law provides that persons with gonorrhea and syphilis in its primary and secondary stages and chancroid are subject to quarantine when by their character, occupation, habits or neglect of treatment and method to protect others, they are menaces to the public health. It also provides that prostitutes may be quarantined before a physical examination has been made.

In the beginning, the Genito-Urinary Division realized that the only effective means of quarantine was in institutions set aside for that purpose. Venereal cases are not amenable to the same discipline as patients suffering with other diseases. Therefore, as a rule quarantine in their own homes is impractical. 32 detention houses have been set aside for the quarantine and treatment of venereal diseased public health menaces. The Department of Health supplies medical and nursing personnel as well as medicines for the treatment of patients held in these houses.

Hospitals are urged to establish free and pay clinics. Persons presenting themselves to the State clinics who are able to pay a nominal sum charged by a hospital or for the services of a private physician, are promptly referred for treatment. Wherever possible, patients are referred to hospital clinics, when they are out of the infectious stage. A patient presenting himself to clinic is required to continue treatment until he is at least rendered non-infectious. A follow-up system has been adopted which requires patients to return to the clinic (or provide other means of treatment) while infectious. The clinic questions new patients as to the source of their infection. When it is possible to learn the source of the disease, the suspected person is sent for and examined. If the suspicion be substantiated, he or she is put under treatment. If he or she refuse treatment, quarantine is enforced, since authority is given to take that measure with any person reasonably suspected of having a venereal disease.

Act No. 116, 1921, distinctly sets forth that local boards of health have the same authority in the matter of quarantine as has the Department of Health. From time to time, owing to the marked growth of venereal disease control work, boards of health will be called upon to handle syphilis and gonorrhea just as they have dealt with smallpox and typhoid fever. It is as necessary to protect the youth of each community from "big pox" as from "little pox".

The need for more and better detention houses is great. The contagious disease Act allows County Commissioners to build contagious disease hospitals. These should be increased and venereal disease quarantined therein.

The abatement and injunction law, which gives the authority to perpetually close houses for the use of immoral practices, should be utilized in all cases where health raids have taken place.

The law dealing with advertisement of venereal disease cures, enacted in 1921, forbids the advertising of nostrums and of "quacks". Local health officers can be of material assistance in detecting such

advertisements and notifying the local drug stores and owners of the property that such advertisement is contrary to the law. Neglect to remove these obnoxious advertisements should be reported to the State Department of Health.

By means of seven paid lecturers, the Division has assisted its clinics in the educational work necessary. Use is made of motion pictures, exhibits and pamphlets in presenting the subject. Medical societies, business men's organizations, women's organizations, employees of manufacturing concerns and other groups have been addressed. The increase of interest manifested by groups of men and women augurs well for the future.

HEALTH IN THE KINDERGARTEN.

By John D. Donnelly, M. D., Asst. Chief, Division of Child Health.

The kindergarten offers the earliest opportunity (outside of the home) for teaching health habits and the discovery of physical defects which otherwise might not be noticed until the child arrives at the school age. Therefore it may be said that on the kindergarten training depends to no small degree, the comfort, health, growth and happiness of the child.

KINDERGARTEN ROOM.

The kindergarten room should be well ventilated without drafts. If possible it should have a southern exposure. The chairs should be of such height as to enable children to sit comfortably with their feet on the floor and their backs supported.

For the customary lunch which is usually served about ten o'clock, a glass of milk with Graham crackers is nutritious and refreshing. If children bring their own lunches, they may be permitted fresh fruit (ripe) and plain sandwiches with milk.

WEIGHT AND HEIGHT.

The kindergarten record of children's growth may be taken as a fair index of their health and development. Although there is an accepted standard weight for height, the weight and height of healthy children of similar age vary according to race, heredity and individual factors.

There are some children of the active type who are constitutionally thin yet show none of the symptoms of malnutrition. However, all children falling 10% or more below normal weight should be given physical examinations by a physician and placed under his observation.

MALNUTRITION.

Many parents fail to recognize malnutrition in their children. If they be thin, it is attributed to heredity. If their progress be slow, it is liable to be charged against the teacher.

The best single guide for gauging malnutrition is based upon the relationship existing between height and weight. Other evidences are nervous irritability, tiredness, difficulty in remaining quiet, capricious appetite, chronic constipation, inattention at school and difficult concentration. Those responsible for children's care during the kindergarten age should see that their nutrition is properly maintained. Malnutrition often lays the foundation for more serious diseases, such as tuberculosis.

More common causes of malnutrition are physical defects, such as bad teeth, diseased tonsils, etc.—Bad food habits, rapid eating with out proper mastication, irregular meals, food insufficient in amount or improper for age, over-activity, too much hard play, insufficient rest, long hours, excitement or inherited disturbances.

The kindergarten teacher should be alert to discover signs of such defects, so that the child may be placed under medical supervision. It is needless to add that unless the primary cause of malnutrition be removed, the child will enter life with a serious handicap.

HOLT'S STANDARD WEIGHT FOR HEIGHT.

HEIGHT	BOYS	GIRLS
37 inches	33.5 lbs.	32.3 lbs.
38 "	35.0 "	33.7 "
39 "	36.5 "	35.2 "
40 "	38.2 "	36.8 "
41 "	40.0 "	38.6 "
42 "	42.0 "	40.4 "
43 "	44.0 "	42.2 "
44 "	46.0 "	44.0 "
45 "	48.0 "	46.0 "
46 "	50.0 "	48.0 "
47 "	52.2 "	50.0 "
48 "	54.6 "	52.5 "
49 "	57.0 "	55.0 "

THE NERVOUS CHILD.

Nervousness in a child is often a danger signal. At four years a child may show well-marked nervous tendencies. They group themselves into two extremes—first, those showing degrees of excitability; second, those showing stolidity in character and actions.

Frequently the nervous child is extremely sensitive and timid. The teacher may have difficulty in getting the child to look her directly in the eye; others are unduly emotional, easily embarrassed and cry readily. Disturbed sleep is common in nervous children and may emphasize itself by dreams, night terrors, wetting the bed, moans, crying out in sleep, etc.

Two types of children bear special watching—the precocious and the seclusive. Precocious children may be so born and advanced intellectually without training on the part of parents or in spite of restraint. These children usually do well. More often, children with

at first little more than the average intelligence, at an early age are subjected in many ways to mental training, resulting in forcible attempts at character formation, or they may develop undue knowledge for their age by close association with older people. Precocity of this type is more apparent than real and should be guarded against, as premature stimulation of the mind may be fraught with ill effects later. It is well to observe closely, the child who does not make friends, who avoids companionship and does not play. Other forms in which nervousness manifests itself are in stuttering, habit spasms, fidgeting, often lack of attention and concentration. It must be remembered that a young child's attention cannot be held for any length of time, and concentration, if carried beyond a minute, is fatiguing.

The teacher should possess and exercise sympathy and discretion, ever ready to discover the thoughts and workings of the child's mind and to see things from the child viewpoint. By so doing she can gain and keep the confidence of her children and teach them self control.

All entertainments should be wholesome without undue excitement. Legends of monsters chasing the bad little boy or the witch who carries off the naughty girl at night, threats of all forms, tales of the darkness and of disturbing ghost stories should be avoided. It is not only a mistake but cowardly to play upon a child's fears. Many timid, sensitive children do not stand hardening. They cannot be bullied by their playmates into physical courage, nor can their embarrassment or whimsical ideas be knocked out of them by punishment of a physical nature. They must be treated gently and guided away from excessive play, study or excitement, otherwise the nervous condition, which is perhaps but a natural characteristic, may be increased and turned into a real nervous or mental disorder. As a rule the nervous child, kindergarten age or older, needs study in small and well diluted doses. Physical exercise performed regularly twice a day will do much toward developing nervous control. Medical advice should be sought in all cases where an unnatural nervous condition exists.

TEETH.

Good teeth are essential to health and good looks. Dentistry in later life cannot make up for the defects of early neglect. If the habit be formed, in early childhood, of properly caring for the teeth, it is likely to continue throughout life.

Dental decay is caused by dirty teeth and excessive indulgence in sweets. The first teeth need care and, if neglected, the permanent set may be injured. Here again the watchfulness of the kindergarten teacher comes into play. First teeth which are decayed should be filled or extracted. Bad teeth in youngsters are often the cause of toothache, gum boils, poisonous absorption from decaying teeth which may cause disease of the glands, joints or heart. Furthermore, such teeth prevent proper mastication and make digestion more difficult; they cause bad breath, spoil the child's looks and produce an uncomfortable child.

The kindergarten teacher should insist that every child, under her charge, have a tooth brush and she should have regular tooth brush drills in order to instruct the children in its proper use.

ADENOIDS AND TONSILS.

Picture of advanced adenoid condition:—Holds mouth open, (mouth breather) small narrow nostrils, heavy or snoring breathing, nasal voice, sometimes tendency to stoop shoulders, chest may be contracted (funnel shape) lower end of breast bone depressed; there may be a groove below the nipples and the child somewhat dull in appearance.

Adenoids may be suspected when frequent colds are accompanied by temporary deafness which may become permanent from repeated attacks; earache with or without fever, or discharging ear; cough on going to bed or lying down, or chronic discharge from nose.

Indirect effects of diseased or enlarged adenoids on health.

When obstruction is sufficient to interfere with breathing, sleep is disturbed, rest is poor, there is lack of vivacity, paleness, weariness and often headache. Continuance of these symptoms may cause irritability of the nervous system which may manifest itself in various forms. Tonsils when large enough to cause obstruction to breathing produce a similar picture, but cause more "throat trouble". When diseased they may show pits filled with cheesy material and favor infection and enlargement of the glands of the neck. Diseased tonsils are sources of rheumatism, St. Vitus' Dance, heart and kidney trouble. When the harmful effects of adenoids and large tonsils are seen, the child should be promptly referred to a physician for treatment.

COLDS.

Children are more susceptible to colds than adults, some appear to have a hereditary tendency. Conditions contributing to colds in children are improper clothing, housing, ventilation, feeding, lowered constitutional resistance, diseased tonsils and adenoids. Colds are communicable from one person to another.

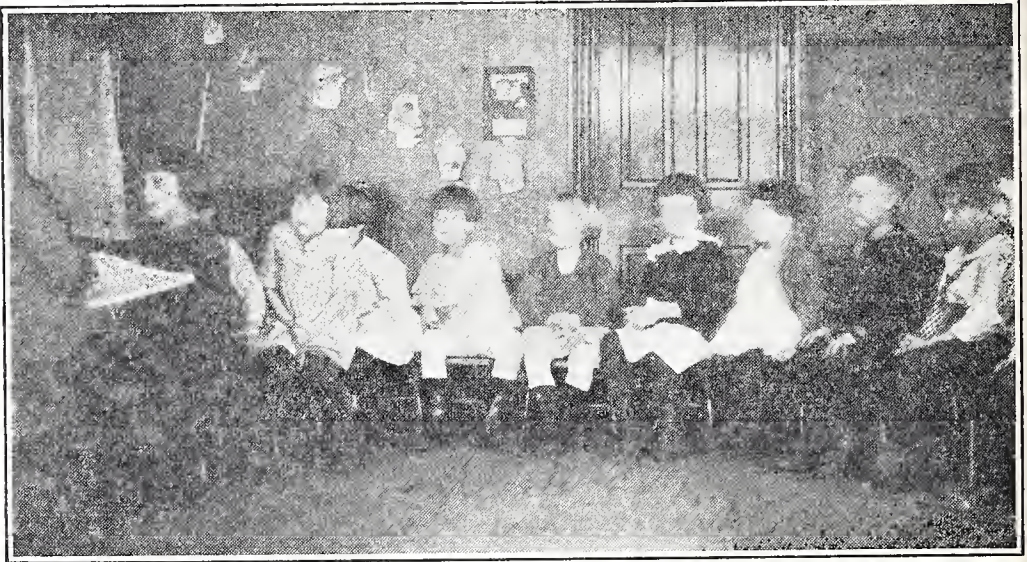
COLD PREVENTION.

Medium weight underwear with light outer clothing in the house, sweaters and heavier wraps being put on when child goes out, with rubbers when indicated by the weather. Over-heated rooms and poor ventilation cause children to perspire when at play and consequently become susceptible to colds.

VISION.

Children often have poor vision, which is not recognized until they have been in school for a year or more. In the kindergarten defective vision may be suspected when the child exhibits difficulty in focusing upon objects at various distances. This usually manifests

itself by blinking or watering of the eyes, the head going forward to help shorten the distance of vision or the child, due to inability to see an object plainly, may suddenly in disgust cease looking at it. In such children, sometimes the eyelids appear sore and styes develop. When faulty vision is suspected, the child's eyes should be examined and refracted by an eye specialist. In this way further strain will be relieved.



Typical Kindergarten Scene.

SPEECH DEFECTS.

The two most common faults in speech are stuttering and faulty articulation. Stuttering is a defect of co-ordination. In some stutterers this is not noticeable when they speak slowly, eagerness and excitement appear to cause speech co-ordination to fail. This condition is frequently associated with nervous instability or defective control. In some children co-ordination appears never to have fully developed. Boys are more liable to possess this defect than girls. Sometimes this is a result of children having mimicked a stutterer. They are, as a rule, intelligent, quick-witted, thoughtful and sensitive children. The fault is chiefly over words upon which emphasis should be placed and upon certain sounds, particularly explosives like p's, b's, t's and d's and the hard g and k. More rarely does the last syllable of a word cause stumbling in speech. Stutterers are usually free from this when singing or when reading poetry aloud, and in some instances, it is absent when whispering.

MANAGEMENT.

As in other defects, the stutterer should be examined by a physician skilled in defective speech work and his advice followed as to training and care.

To overcome this habit not only education of speech is required, but also improvement in the child's general health. As a rule, regular breathing exercises twice a day are of benefit. Daily practice in singing and reading aloud nursery rhymes assist speech co-ordination. When a stutterer stumbles on a word, he should be made to repeat it or the entire sentence. Prose should not be touched until rhyme and poetry have been mastered. The big point is that such children should be taught self-control and to speak slowly and quietly with an air of assurance.

DEFECTIVE ARTICULATION.

Under this heading is included lisping, baby talk and similar defects of speech.

Lisping or baby talk persisting after the fourth year should be regarded as abnormal. These children may be handicapped by parents, nurses and teachers conversing with them in baby language. The child who has to acquire the pronunciation and articulation of every syllable of a word cannot learn proper articulation or be taught to speak clearly, slowly and distinctly if adults insist upon baby speech. Like the stutterer, the old nursery rhymes are excellent means for speech training.

TICS, JERKS AND HABIT SPASMS.

It is quite difficult at times to distinguish between such irregular and apparent involuntary movements of different parts of the body as to whether they are pure habit spasms or St. Vitus' Dance. Certainly a child having twitchings of various groups of muscles, elevation of eye-brows, frowning, drawing one angle of the mouth to one side or who is fidgety, nods the head or shrugs the shoulders all without apparent cause, needs to be placed under medical observation. With these children it appears that as fast as they get rid of one movement they get another, this is more particularly true of habit spasms in which there is a repetition of one movement or one set of movements which often is diminished when the child is conscious of being observed. Children with St. Vitus' Dance may suddenly begin dropping things, for instance the knife, fork, book, etc., and attention to work will diminish; they will be unable to do sums and may have a stumbling or jerky gait.

CONCLUSION.

The installation of health habits in a kindergarten child can do much toward the maintenance of good health and physical development which will be the foundation for an active and useful life. The time to prevent trouble is in its beginning, and the beginning of most trouble in children is usually noticeable by the fifth year, often earlier. A kindergarten teacher can do no greater service to the child, the family and her institution, than to ever be on the lookout for mental and physical peculiarities in her charges, and direct the parents on the road to making sure that their children are well and physically fit upon entering their school career.

Names and Addresses of County Medical Directors of Penna.

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ALLEGHENY COUNTY

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ARMSTRONG COUNTY

Dr. T. N. McKee, Kittanning

BEAVER COUNTY

Dr. John A. Stevens, Woodlawn

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Dr. Wilmot Ayres, Bedford

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CAMERON COUNTY

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DAUPHIN COUNTY

Dr. Daniel E. Hottenstein, Millersburg

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Dr. Maurice T. Leary, Ridgway

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Dr. R. O. Miller, 838 E. 24th St., Erie

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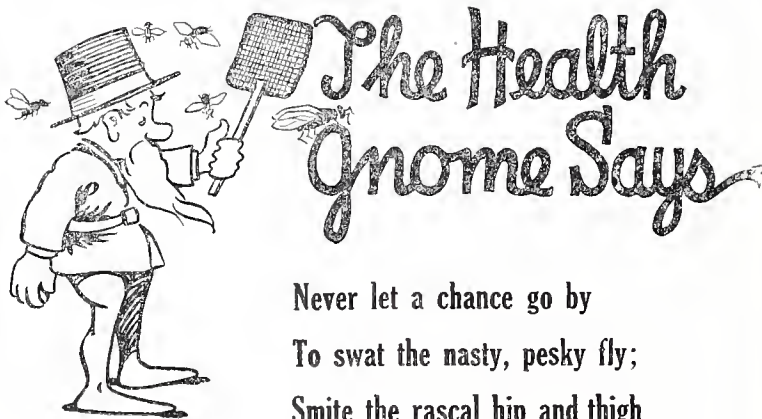
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Never let a chance go by
To swat the nasty, pesky fly;
Smite the rascal hip and thigh
Or he may get you by and by.



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 by The Division of Public Health Education
 Penna. Department of Health

Vol. 1

MARCH, 1923

No. 4

CONTENTS

<i>Any Rags? Any Bones? Any Bottles To-Day?</i>	1-2
<i>A New Profession</i> - - - - -	2-7
<i>Department of Health Notes</i> - - - - -	7-8
<i>Sanitary Cleaning</i> - - - - -	8-9
<i>Beware of Public Towels</i> - - - - -	10
<i>Board of Health Requirements</i> - - - - -	10-11
<i>Diphtheria in Pennsylvania</i> - - - - -	11-12
<i>Campaign for Diphtheria Prevention</i> - -	12-13

*“Know all the good that individuals find,
Or God and Nature meant to mere mankind,
Reason’s whole pleasure, all the joys of Sense,
Lie in three words, Health, Peace and Competence.”*

Alexander Pope

The Listening Post

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ANY RAGS? ANY BONES? ANY BOTTLES TODAY?

Before the month of April has passed, Madam Fly will be on the job: her great objective, the founding of a numerous family, 150 eggs (if they hatch and mature) will mean 150 flies about equally divided as to sex. Barring accident, within two weeks, 75 zealous females will be cheerfully expectant of 75 new families of 150 each, and so they will go on, faithfully following out the scriptural admonition: "Be fruitful and multiply."

Fortunately for the comfort of mankind, there are frequent interferences with the hatching and bringing up of a fly family.

For instance, if Madam Fly deposit her eggs on a board, they will shrivel and dry up.

If she leave them on the grass, they will hatch, but the larvae will die from starvation.

For a successful issue, the eggs must be placed where there is moisture, warmth and food suitable for the ever hungry larvae. These conditions are found in the stable, the pig pen, the outside toilet and in accumulations of decaying animal and vegetable matter.

When Madam Fly goes house hunting, she turns up her nose, so to speak, at clean yards, tight lidded, shiny garbage cans, clean stables and screened toilets.

With a sniff of disdain she passes up such places as unfit and directs her search toward more agreeable quarters.

If her lines have fallen in one of those towns, where the slogan-CLEAN UP AND KEEP CLEAN — is a rule for everybody and not for the other fellow only, she will be, as they say in the army, "Out of luck."

NOW IS THE TIME to throw the monkey wrench, before the machinery is fairly started.

Presently the rickety wagon, drawn by the long haired, sleepy old horse, will be coming along, and we will hear the familiar spring time anthem, bawled out in raucous tones — "Any rags

any bones, any bottles today?" Don't disappoint the junk man -- clear out your trash —sell what you can and burn the rest.

The treasures which have lain so long in the attic can easily be spared, and you will be surprised to note how little they will be missed.

Old clothes, which will never be used — stacks of magazines which will never be looked at — band boxes with hats of ancient vintage — old shoes — broken furniture — and bric-a-brac of various kinds. JUNK, ALL JUNK.

CLEAN UP AND KEEP CLEAN means get rid of all junk from attic to cellar. Old bottles, jars, tin cans, ashes, decayed fruit and vegetables, dozens of things which are useless and in the way.

Rake the yard — clean and lime outside toilets — clean stables — remove manure and sprinkle the site with borax. Clean the gutters and ditches.

Let us all get together for a general CLEAN UP, not a clean up week — but a clean up campaign, to begin at a definite time and keep up as long as necessary. Let us wash Pennsylvania's face, comb her hair and brush her teeth, so that Madam Fly, her insect relatives and her disease germ friends, may find no joy or comfort anywhere.

No "lick and promise" performance, but a thorough "honest to goodness" effort to make cities, towns and homes, cleaner, healthier, safer and more attractive.

The State Department of Forestry, Police and Fire Protection are co-operating with the State Department of Health to make Pennsylvania's clean up, the "biggest and best ever."

April 16 has been selected as the time to start the work.

Get together now and get ready. When your organization has been completed, send a postal card, naming your officers, to the LISTENING POST.

A NEW PROFESSION

By

C. J. Hollister, D. D. S.,
Chief, Dental Division.

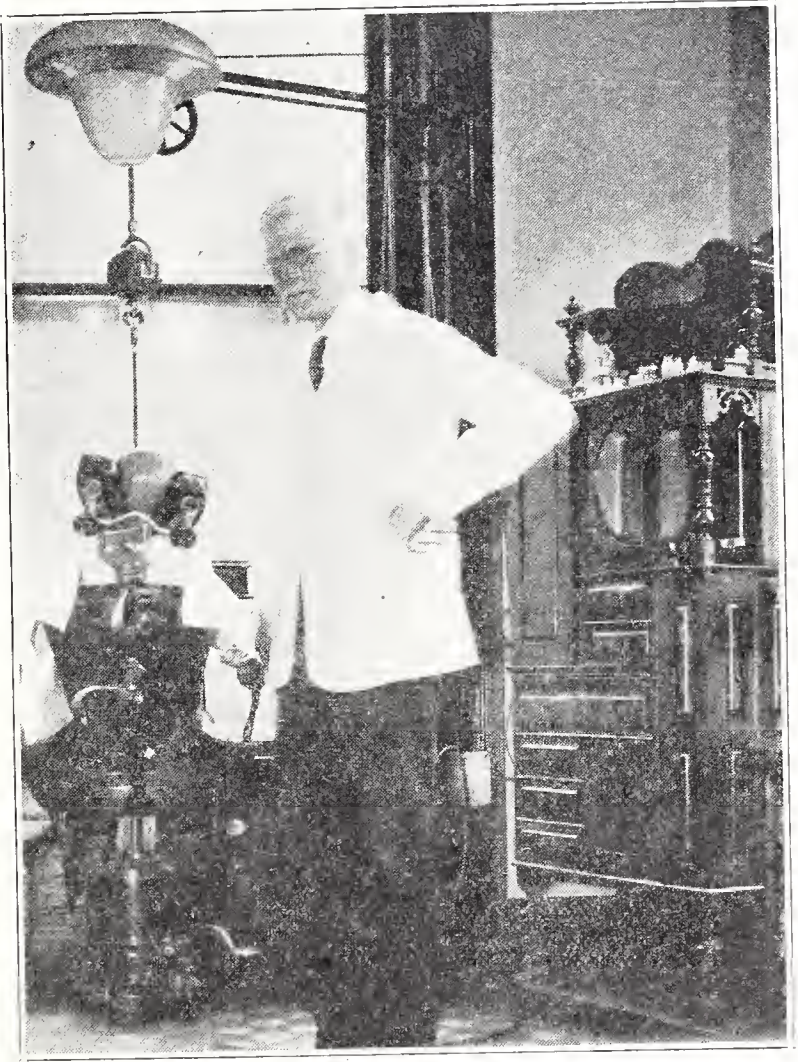
It is generally accepted that the condition of the teeth is a prime factor (often the deciding one) in individual health and efficiency.

Good teeth mean satisfactory mastication, normal digestion, proper assimilation.

Bad teeth mean insufficient mastication, retarded digestion, incomplete assimilation, malnutrition, plus germ breeding cavities, ab-

scessed roots, which cause rheumatism and kindred defects—bad breath and disfigurement.

And because children handicapped by ill-kept teeth are often backward in their school progress, to the added expense of school maintenance, the care of the teeth becomes a matter of public concern.



Dental Clinic. Bradford, Pennsylvania.

As the fact stands, 70% of Pennsylvania's school children have tooth defects; it would be difficult to make a definite estimate as to the additional cost to the schools, on account of children retarded in their progress because of dental defects, but it is high enough to be felt in every district.

The question arises: "Is there any way to remedy this condition, to wipe out the 70%?"

The answer is: "Yes."

"How can it be done?"

The public must cure the public ill. The solution is a practical one. Bad teeth can be fixed—therefore fix them. Public dental clinics have been in operation for sufficient time and in enough places to demonstrate their possibilities.

The dental clinic also presents distinct advantages to the dental profession; first, by lessening the amount of charity work done by private dentists, second, by the increase of their private practices, which is the natural sequence of publicity, due to dental work in the schools.

How a dental clinic may be organized.

First plan.

Dentists of towns arrange to give a certain hour, or hours per day or week to work on worthy cases, which have been recommended by community nurse or welfare workers. In smaller towns this has been worked out quite successfully.

Second plan.

In a room centrally located, equipment is provided either by tax funds or local welfare societies, such as Rotary, Kiwanis, Lions, Civic and Women's Clubs, local Red Cross Chapters and Tuberculosis Societies. This equipment can be supplied at a cost ranging from two hundred and fifty dollars up, depending on funds available—the operating dentist to be supplied for one or more half days per week by volunteer service, or if funds be available, to be paid on an hourly basis at a rate varying from two to four dollars per hour. Any plan for organizing local dental clinics should be endorsed by local dentists and their advice solicited.

Third plan.

Equipment to be supplied in same manner as noted in Plan No. 2, and funds made available to employ dentist on part or full time, on salary, by the hour or monthly basis.

Suggested Rates:

Per hour \$2.00 — \$4.00

Part time monthly ... \$50.00 — \$80.00

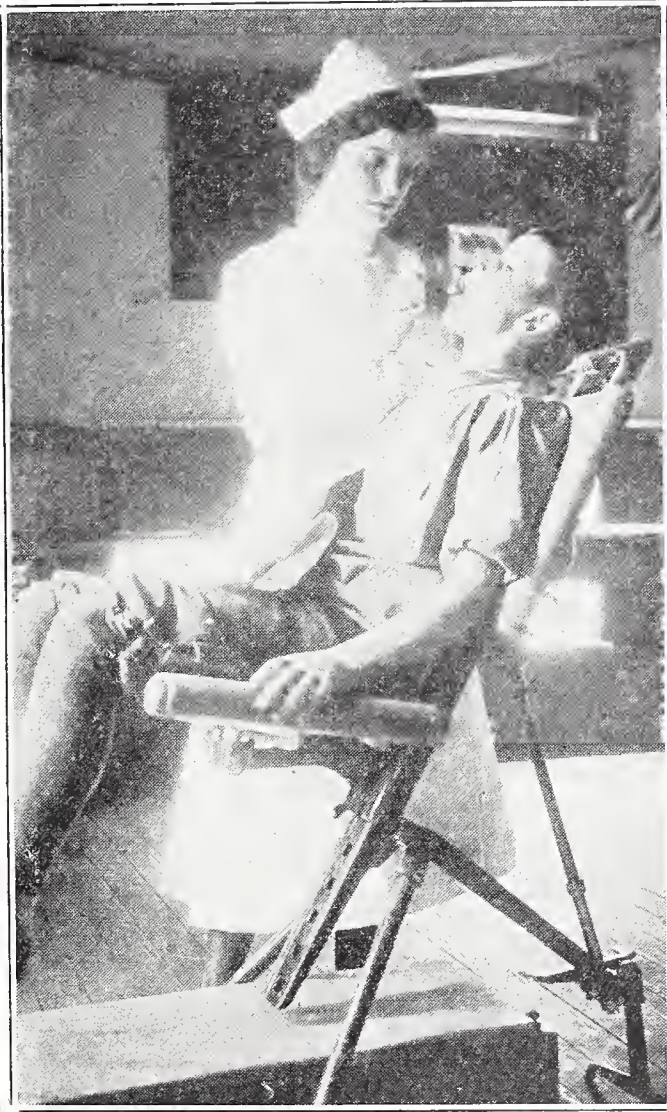
Full time annually ... \$1500 — \$2400

Community Dental Preventive and Educational Service.

Since dental defects are largely preventable, an educational program suggests itself as the first step in the solution of the problem of tooth troubles.

A new profession or vocation has come into being,—DENTAL HYGIENE. The operator, who is especially trained, is called a Dentist Hygienist. She is a cleaner of teeth and does no filling or extracting, nor does she make diagnosis, but she is more than just a cleaner of teeth. She is a teacher of Hygiene, both dental and gen-

eral, giving tooth brush drills and telling the HOW, WHY and WHEN of the tooth brush and is also trained to fundamentally teach: *what to eat and how to eat it*. The place to begin any educational work is with the child, for there you have a plastic and receptive mind. Health habits, both dental and general, can be inculcated in the child mind with better results than the adult.



Dental Hygienist at Work.

The practical prophylaxis accompanying the classroom work of the dental hygienist visualizes the value of mouth cleanliness, the child whose teeth have been cleaned has an awakened pride in his general cleanliness and appearance, his moral tone is elevated, and he is in the way of making a better citizen.

How a Preventive Dental Service may be established.

One dental hygienist in a two hundred day school year can clean the teeth of about sixteen hundred children. Dental hygienists can be employed for about one hundred dollars per month. The equipment, which is portable and permanent, costs about one hundred dollars.

The State Department of Education issues a partial teacher's certificate to dental hygienists, which means that a proportionate part of her salary would be paid by the State, thereby lessening the cost to the local school board.

The plan of operation of the dental hygienist is to set up portable equipment in some part of the school building, such as, Principal's office, rest room or even on the stair landing, any place where good light is available and as near running water as possible. It is advised that her work start with the first grade and be carried to the fifth grade, if possible. At the start, it is advisable to have the written consent of the parent or guardian of the child before cleaning his teeth. Even though the dental hygienist does not have time to do practical work in all grades in a building, it is of value to have her conduct the classroom work through the entire building.

The dental hygienist should work in each school building. It is a part of the child's school life, there is little or no interference with the regular school work, and also no problem of transportation.



Tooth Brush Drill.

Plan for Establishment of Preventive Dental Service.

In places where school population is not large enough to warrant employment of dental hygienists on full time, two or more such places can co-operatively hire and finance the work.

First—Financing Plan.

Money to provide salary and equipment of dental hygienist to be raised by local Red Cross, Tuberculosis Societies, Rotary, Kiwanis, Civic, Women's Clubs or Chambers of Commerce. This can and has been done either by any one of the above organizations, or co-operatively by two or more of them.

Second Plan.

Have above-named organizations request local school board to establish the service, the organizations assisting in the financing.

Third Plan.

The above organizations or any one of them request the school board to finance the plan.

Any community dental program proposed should have the advice and endorsement of the local dentists and in the dental hygiene or preventive service, they should be requested to act as an advisory committee.

In Bridgeport, Connecticut, where the dental preventive program was first installed, it was found that it lowered the cost of re-education fifty per cent, or to use actual figures, before dental hygiene education was a part of their school system, it cost forty-two per cent of their entire school budget for re-education. After five years of intensive mouth hygiene work, the percentage dropped to seventeen per cent. The difference between forty-two and seventeen per cent in dollars and cents was many times the actual cost of doing the work. It is cheaper to do this work than not to, to say nothing about the welfare of the individual child which cannot be estimated in money.

DEPARTMENT OF HEALTH NOTES

Dr. Charles H. Miner, former County Medical Director of Luzerne County, has been appointed Commissioner of Health, vice Edward Martin, resigned. Dr. Miner took the oath of office and assumed the duties on February 5th.

Dr. C. W. Webb, County Medical Director, Tioga County, died February 5th. The duties of the office will be performed temporarily by Dr. Charles W. Sheldon, Supervising Medical Director, located at Wellsboro.

Dr. Edward W. Bixby, 61 West Ross Street, Wilkes-Barre, has been appointed County Medical Director for Luzerne County, to succeed Dr. Charles H. Miner.

Dr. John D. McLean, Deputy Commissioner of Health, resigned to take effect March 1st. Dr. William G. Turnbull, Superintendent and Medical Director of the Cresson Free State Tuberculosis Sanatorium, since its opening, has been appointed Deputy Commissioner of Health.

Dr. S. Leon Gans, Chief of the Division of Venereal Disease Control, has resigned to take effect April 1st.

SANITARY CLEANING

Gaseous disinfection of premises at the termination of contagious disease, either by recovery or death, was a former regulation of the Pennsylvania Department of Health. This requirement has been re-enacted in numerous instances as borough ordinances and still stands on the statute books of many municipalities.

It is the consensus of medical opinion in more recent years, that what we term sanitary cleaning is equally, if not more, effective as a preventive of contagion than gaseous disinfection, especially as the latter in unskilled hands is often incompletely done.

Pennsylvania, in common with the majority of other states, has abandoned gaseous disinfection and substituted sanitary cleaning at the termination of all communicable diseases, except small pox in which formaldehyde gas is required and (in case vermin be present) a further disinfection with sulphur gas.

In order that there may be uniformity in regard to terminal disinfection, it is advised that local ordinances requiring gaseous disinfection, be amended by substituting sanitary cleaning in all instances except small pox.

For sanitary cleaning the cleaner will need:

- 1 — A gown or outer covering that can be boiled
- 2 — Soap, water, scrubbing brush and cleaning cloths
- 3 — Disinfecting solutions. These are poisonous if taken internally.
 - (a) Bichloride of Mercury (corrosive sublimate solution). 2 tablets ($7\frac{1}{2}$ Grs. each) to a quart of water. This solution will corrode metal.
 - (b) Formaldehyde solution. Four teaspoonsful of formaldehyde (at least 37%) to a quart of water.

The bichloride of mercury solution is applied by a damp cloth to walls, furniture and all wood work after the scrubbing with soap and water.

The formaldehyde solution is used to disinfect fabrics which cannot be boiled. Since it is irritating to the skin of the hands and the fumes cause a burning of the nose and eyes, it should be mixed in a vessel which can be covered and should be covered and should be applied by sprinkling, a whisk broom answering well.

With the clothing covered by a washable gown, the cleaner collects and places in a wash boiler the sick room clothing, bedding and fabrics which can be boiled without injury. They are boiled for half an hour.

Flannels, street clothing and woolen blankets are liberally sprinkled with formaldehyde solution (above) and lightly bundled

together for four hours; they are then thoroughly sunned and aired. A light sprinkling with diluted ammonia water, followed by another airing, will neutralize the formaldehyde fumes. If grossly soiled, they then may be cleaned in the usual manner (lukewarm, soapy water), or, if not of great value, they should be burned.

Eating and drinking utensils used by the patient are boiled.

Surface Disinfection. With soap and water scrub thoroughly all flat surfaces including wood work, floors, bedsteads and furniture. Pay special attention to handrails, door knobs and balustrades. Follow this cleaning by wiping down with a cloth dampened in bichloride solution; creolin, six tablepoonsful to a quart of water; or chlorinated lime, a heaping tablepoonful from a freshly opened can to a quart of water, may be used. This damp wiping should include the walls and ceiling.

Where the wall paper has been soiled with the discharges of the patient, it should be removed by soaking with one of the antiseptic solutions.

Airing. Following the sanitary cleaning, the room or rooms should be thoroughly aired and sunned (where practicable) for at least 24 hours before being occupied.

Following typhoid fever, if the discharges of the patient have been in a privy vault or cesspool, even though they have been properly disinfected, sprinkle into this vault from one to two pecks of *fresh* unslaked lime (air slaked, powdered lime is worthless) or else at least one pound of fresh chlorinated lime.

After removal of quarantine the patient should wash his hands with soap and water and apply the bichloride antiseptic solution after each visit to the toilet, and should disinfect his discharges as was done during the course of his fever. This precaution should be taken for the protection of others until the laboratory reports show that the discharges no longer contain typhoid bacilli.

The Health Gnome Says



*Kill the germs that bring disease—
Kill them any way you please,
But Bi-chloride and soap and water
Will down them, mother, son and daughter.*

BEWARE OF PUBLIC TOWELS!

A young married woman recently went into the ladies' rest room and lavatory of one of the downtown stores, washed her hands and face, and as there was no clean towel available, she used one already soiled. A few days later she developed an inflammation in her left eye. She saw her physician, who took a smear from the exudate of the eye, had it examined, and found it full of gonococci.

As gonorrhoeal ophthalmia is one of the worst afflictions which can befall a human individual, the doctor did the wise act and sent her to a hospital, where she could receive expert treatment constantly until cured.

Here is a case of unusual interest. Some sloppy criminal, suffering from gonorrhoea, had used this towel in the ladies' lavatory, and in a most unusual way infected an innocent woman!

True, such an accident might not happen once in a million times, but this woman happened to be the millionth!

Some years ago a still more unfortunate accident happened in one of our large factories. A workman used a dirty roller towel in the washroom, caught gonorrhoeal ophthalmia, neglected treatment, and became totally blind! — Buffalo Sanitary Bulletin.

BOARD OF HEALTH REQUIREMENTS

- 1—Board of Health must be regularly organized with full membership in accordance with law and must hold monthly meetings.
- 2—Board must make weekly reports to the Division of Vital Statistics, regular reports to the Division of Restaurant Hygiene and annual reports to the State Department of Health.
- 3—The Board must exhibit co-operation with the State Department of Health by prompt attention to correspondence.
- 4—Board must have the co-operation of the Council.
- 5—Board must receive an annual appropriation sufficient to carry on its work or must have satisfactory arrangement with the Council, under which all their bills shall be met.
- 6—Board must have an efficient Secretary.
- 7—Board must have an efficient Health Officer.
- 8—Board must be enrolled in District Association and dues paid.
- 9—Board must enforce quarantine.
- 10—Physicians must be required to make reports of all diseases notifiable by law.
- 11—The requirements of the Restaurant Hygiene Division must be carried out.

12—Disinfection after communicable diseases must be carried out in a manner approved by the Commissioner of Health.

13—The town must have adequate sewers or privies and cess pools maintained in accordance with the requirements of the Department of Health.

14—The Board must maintain regular sanitary inspection and eliminate nuisances.

15—There must be a wholesome and adequate water supply.

16—Board must maintain supervision over the milk supply.

17—The town must have clean streets and alleys.

18—The housing conditions must be in accordance with the requirements of the Bureau of Housing.

19—The anti-spitting law must be enforced.

20—The Health Officer must investigate rumors of reported disease, and cases thus found referred to the medical member of the Board for diagnosis and quarantine.

All Boards of Health in Pennsylvania are classified in the files of the State Department of Health in accordance with the above articles. There are 4 Classes, A, B, C and D, signifying in their order excellent, good, medium and poor.

The following scheme of classification has been adopted:—

Class A—observance of 20 Articles

Class B—observance of 18 Articles

Class C—observance of 16 Articles

Class D—observance of 14 Articles or less.

In what class is your Board?

It is the purpose of the Listening Post to publish a roster of the Class A Boards of Health of Pennsylvania in the June issue. All Boards which qualify before that time will be included in the list. Look for the name of your town. If you don't see it, find out why.

The borough of Aldan, Delaware County, which has been but recently organized, has already completed a sewer system and arranged for a visiting nurse service, which is maintained by the Board of Health. They report the nurse employed is of great assistance in quarantine enforcement.

DIPHTHERIA IN PENNSYLVANIA

There were reported in Pennsylvania during the year 1922, 16,617 cases of diphtheria; a reduction of approximately 20% from the reports of the year 1921, when there were 20,794 cases. We feel that much of the improvement in the morbidity report of this highly

transmissible disease is due to the intensive campaign waged against it by the State Department of Health.

County Medical Directors, Boards of Health, Health Officers, Nurses and Civic Organizations have awakened to the fact that diphtheria can be controlled. Those in charge of the special work being done against diphtheria appreciate to the fullest extent the help that has been secured from all.

The physicians of the State have been especially helpful in sending data upon which to base a comprehensive study of causes of failure to control both the morbidity and mortality.

During the year just closed, a study was made of the circumstances surrounding all deaths from diphtheria. Some of the facts brought out in this study were:

1. A criminally long average delay on the part of parents in securing medical aid—4.7 days from the onset of the disease.
2. Failure to immunize contacts; an average of but one person to each case having been given immunizing doses of antitoxin.
3. Too much dependence placed upon the laboratory to make the diagnosis.

Lessons to be learned:

1. Every case of sore throat should have a doctor see it at once.
2. Every child in contact with a diphtheria case should be given 1,000 units of antitoxin without delay.
3. Every case of sore throat or croup should be treated as diphtheria until laboratory proves it otherwise.

J. Bruce McCreary, M. D.,
Associate Chief Medical Director.

CAMPAIGN FOR DIPHTHERIA PREVENTION

Under the Auspices of

THE COMMITTEE ON PUBLIC RELATIONS

of the

MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

In Pennsylvania, the diphtheria record, both in regard to its incidence and its case death rate, is not largely creditable to the profession. In some counties the case death rate is 24%. In other counties and localities it is down as low as 4%. This latter figure represents probably and for the present, its irreducible minimum.

Diphtheria can be prevented. It can be cured. But only by concerted action on the part of the medical profession.

The Medical Society of the State of Pennsylvania has taken upon itself the task—through its constituent bodies and its individual

members—of making a creditable showing before the whole world. It is taking its first concerted and organized step in preventive medicine. No such step can possibly be effective without the medical profession. Given full co-operation of all its members and a proper knowledge of the subject, such a step is bound to produce results beyond the reach of any organized department of health.

In April, there will be a DIPHTHERIA WEEK, organized by the Committee on Public Relations of the Medical Society of the State of Pennsylvania, and conducted by the members of the profession, grouped or individually.

The campaign will be conducted in such wise that knowledge of the causes of incidence and mortality shall be carried to every citizen: the press, the church, the schools, local health and governmental authorities, civic and welfare organizations, business, and labor, will all be enrolled.

To each county medical society will be sent a formulation of the present knowledge of diphtheria and the complete means for its control. This is to be sent for discussion, suggestions and criticism; the agreement concerning the means of control to be published in THE PENNSYLVANIA MEDICAL JOURNAL.

The state heads of the various organizations will receive a communication asking for their co-operation in the form of communications, addressed to subdivisions throughout the state. These subdivisions will then be approached by members of the medical profession organized in such working form that the entire membership may be reached. Sermons will be preached in the churches, lessons given in the Sunday schools and day schools, and business and labor organizations will be instructed by the medical profession. The press will lend its active support, both broadly through the state and locally. The citizen body will be enrolled in the campaign. The great power of organized medicine, as expressed through its individuals, will be utilized to the full.

Every doctor in the state is asked: first, to inform himself fully of the modern methods of diphtheria control; second, to carry this knowledge to all the people.

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The Pennsylvania Medical Journal, February, 1923.

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Diphtheria Control

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Water Works and Sewage

Howard Moses.

Milk Control

Ralph Irwin.



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CONTENTS

<i>The Defenseless Kiss</i>	- - - - -	1-- 2
<i>Pennsylvania's Commissioners of Health</i>	- - - - -	2-- 6
<i>Milk Regulations</i>	- - - - -	6--10
<i>Department of Health Notes</i>	- - - - -	11
<i>Help</i>	- - - - -	11--12
<i>An Object Lesson</i>	- - - - -	12--13
<i>District Board of Health Associations</i>	- - - - -	13--14

WHAT THE CAT THOUGHT.

*Often have I meditated
On great problems hard to settle,
Which my cat-heart fully fathomed;
But there's one which yet remaineth
Quite unsolved, uncomprehended--
Why do people kiss each other?

Why do mostly so the youthful?
And why mostly these in spring-time?
Over all these knotty questions,
I intend to ponder further,
On the gable-roof tomorrow.*

Joseph Victor Von Scheffel.

The Listening Post

A MONTHLY JOURNAL OF PUBLIC HEALTH

EDITOR

William C. Miller, M. D.

Address communications to The Listening Post,
Pennsylvania Department of Health,
Harrisburg, Pennsylvania.

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No. 5

THE DEFENSELESS KISS

Just when the practice of kissing started no one appears to know. It is recorded in the book of Genesis that Isaac old, feeble and almost blind, kissed his son Jacob. It is altogether probable that the custom existed long before that time, but for the present purpose that instance will suffice as a type of defensible kissing.

Jacob was old enough, big enough and strong enough to successfully resist, if the process were disagreeable or annoying to him.

This is not a dissertation on kissing in general, about which many arguments might be advanced pro and con.

Concerning all phases of defensible kissing, which vary in form of execution from the kiss received with dignified acquiescence to the one responded to with a spirit denoting enthusiastic co-operation, this article offers neither advice nor suggestion.

It is the kiss implanted upon the lips of the defenseless infant to which particular attention is directed.

Tuberculosis is by no means the only disease which is transmitted by the secretions of the mouth, but it will answer as an example.

Tuberculosis is usually contracted in infancy or early childhood and often as the result of the frequent and repeated kisses of tuberculous near relatives or friends. It may happen that the resisting power of the baby is sufficient to prevent the immediate development of the disease, but not enough to destroy the germs, which may remain passive for years, locked tightly in glands here and there throughout the body, until the onset of some great weakening process—Typhoid, pneumonia, a surgical operation—when all the combative forces of nature are called into action to resist the new condition. Then the germs of tuberculosis burst their bonds, and there is another case of so called “galloping consumption”, which is evidence to the untaught that tuberculosis is hereditary, because the victim was born of tuberculous parents or because it was in the family, but which to the Health Student, is only a confirmation of well established precedent, that the disease was contracted years before and in all probability through the medium of kisses.

The desire to kiss a sweet faced baby is natural to every one, and to the Mother the temptation is well nigh irresistible.

It would be a hard heart indeed that would deny this natural expression of Mother Love, nor is such sacrifice asked. The baby has a soft round cheek that was made for kissing, why endanger its future welfare by kissing it on the mouth?

All parents do not have tuberculosis, but it is an insidious disease which may attack any person and may appear at any time of life—and there is no doubt about the truth of the statement that, if no babies were kissed upon the mouth, there would be vastly fewer cases of tuberculosis. Therefore, for the safety of these future citizens, make it the rule that Baby shall be kissed only on the cheek by the family and not at all by strangers.

METHUSELAH

“Methuselah, I will agree,
Lived many years,” said Doarch,
“But think how long he’d lived if he
Had used a sleeping porch.”

Luke McLuke.

We hate to call the scripture wrong,
But how can it be true
That any man could live so long,
And have his tonsils too.

Cleveland Plain Dealer.

Methuselah was very wise
As wise as any solon,
He kept his health for many years,
By tending to his colon.

Hygeia.

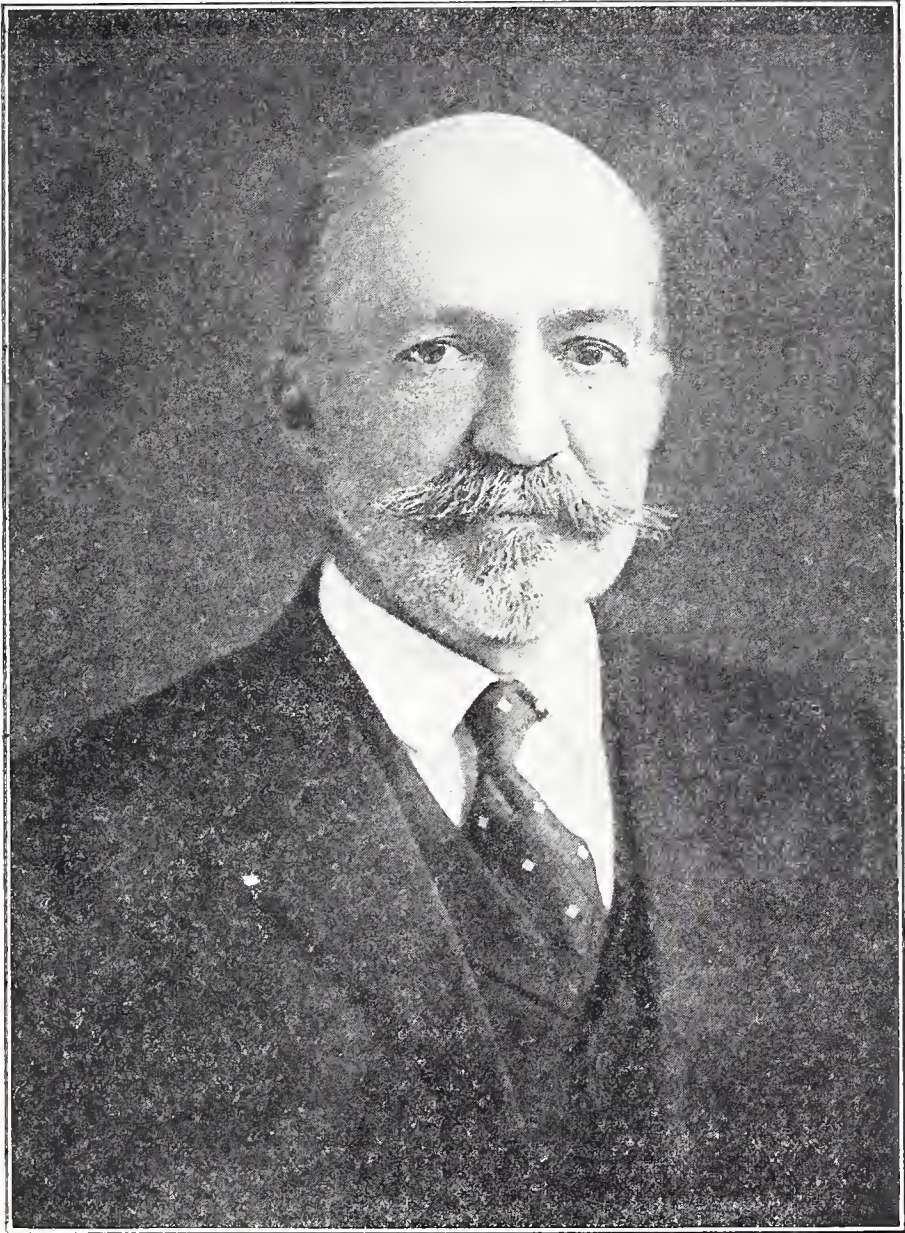
As the oldest man in history
Methuselah takes the prize
The reason? It’s no mystery
He took daily exercise.

PENNSYLVANIA’S COMMISSIONERS OF HEALTH

The Pennsylvania Department of Health was created by the Legislature of 1905. The Act invested the Commissioner of Health with extensive powers and carried with it a liberal appropriation.

The first Commissioner, Dr. Samuel G. Dixon, remained in office until his death in 1918. During Dr. Dixon’s administration, three great free tuberculosis sanatoria, totalling 2,000 bed capacity, were

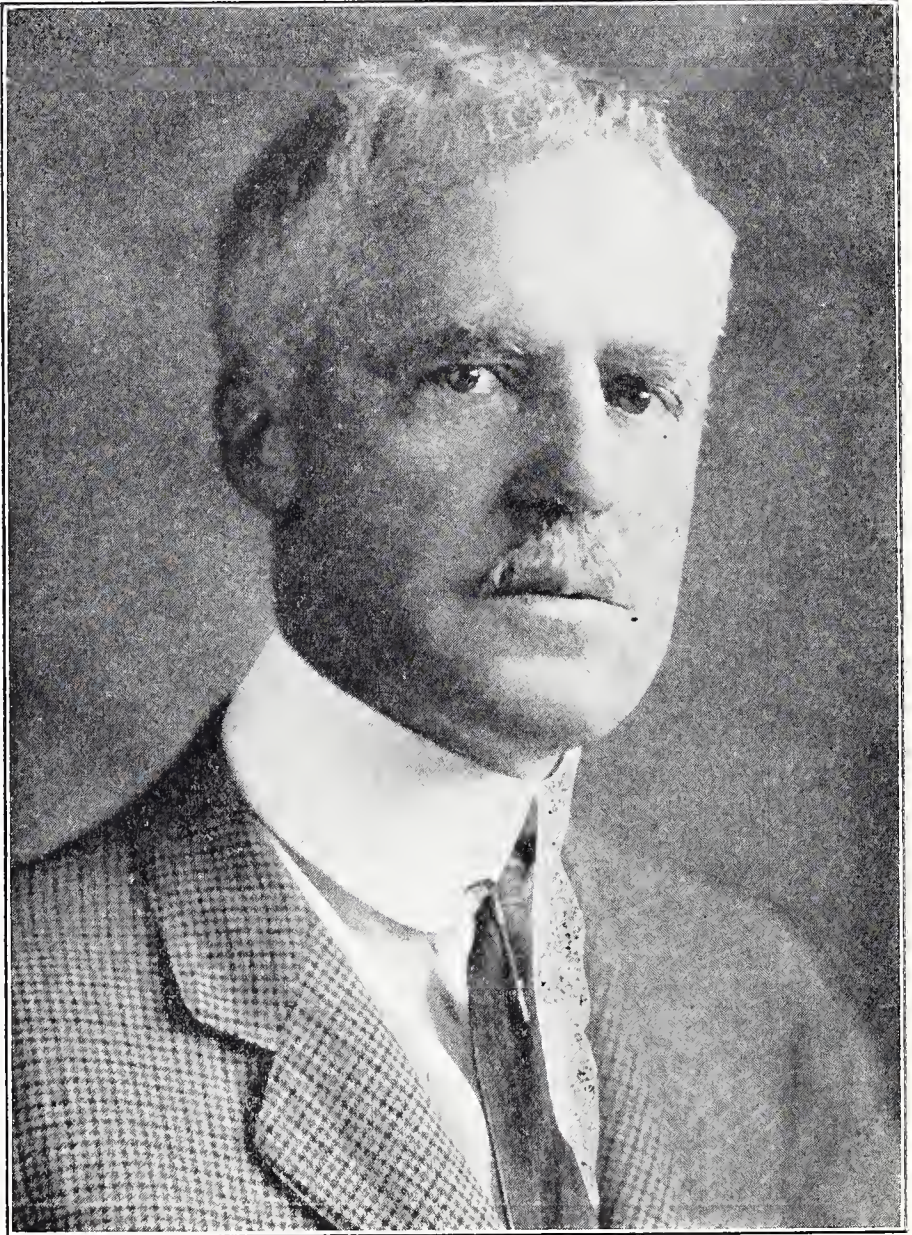
erected and maintained. 119 free tuberculosis dispensaries were established, caring for 20,000 patients annually. A survey of the watersheds of the State was made and, as the result of his insistence upon water purification and sewage disposal, the death rate from typhoid was reduced 75%. Anti toxins for diphtheria and tetanus were distributed free to the indigent. Medical inspection of schools was organized. Bureaus of Housing and Drug Control established, a laboratory of research operated and educational propaganda widely disseminated.



Dr. Samuel G. Dixon
Commissioner of Health 1905-1918

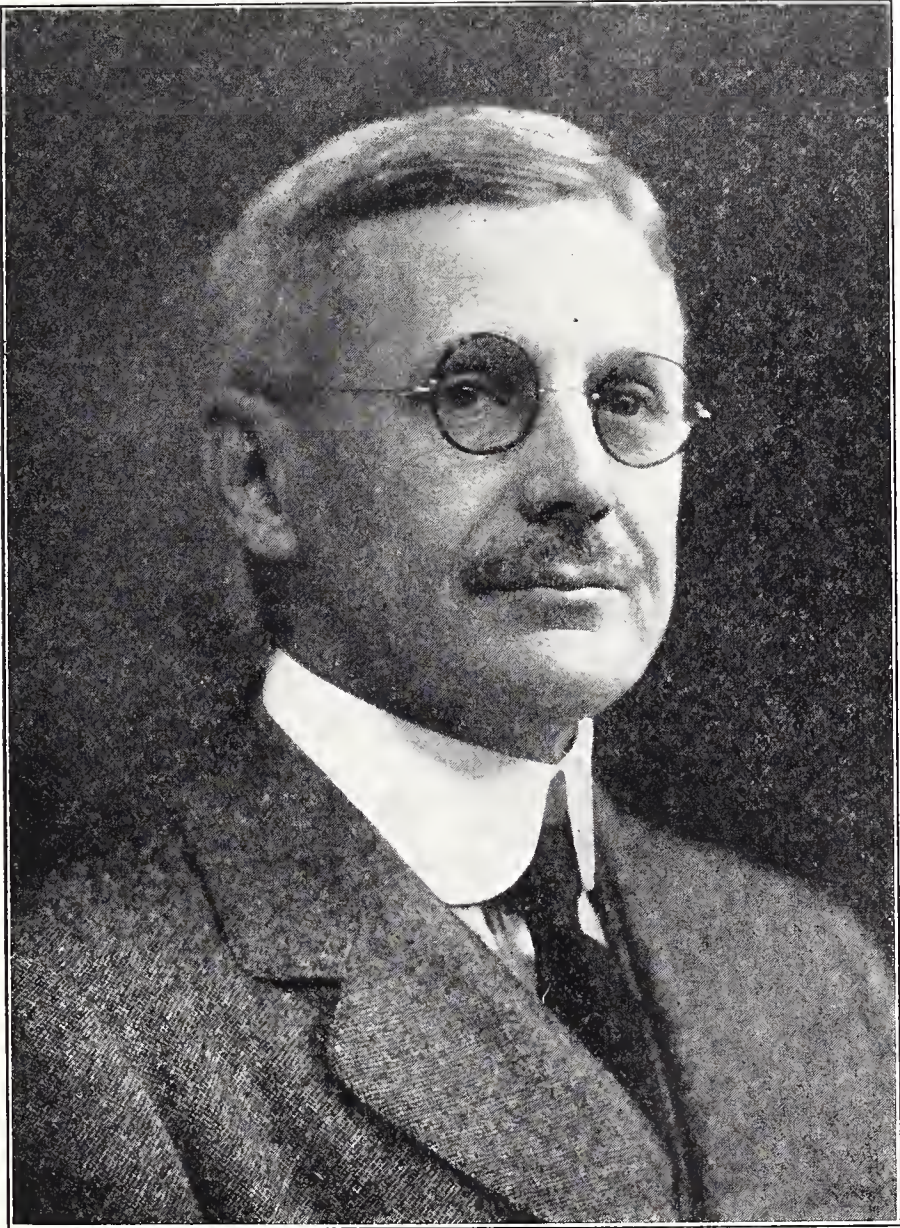
Upon the death of Dr. Dixon in March 1918, Dr. B. Franklin Royer was made Acting Commissioner and continued as such until January, 1919. Dr. Royer continued the policies of Dr. Dixon and in the fall of 1918 directed the emergency work of the well remembered epidemic of influenza, which cost the lives of almost 50,000 Pennsylvania citizens.

In January, 1919, Colonel Edward Martin, formerly Professor of Surgery at the University of Pennsylvania, became Commissioner of Health. Under his administration the already established ac-



Colonel Edward Martin,
Commissioner of Health 1918-1923.

tivities of the Department were continued, in addition to which the scope of the State Laboratories was enlarged and they were thrown open to the use of the Physicians of the State, diphtheria and tetanus anti toxins were distributed free to all citizens of Pennsylvania, an intensive campaign against diphtheria started, a state wide fly campaign put on, correspondence schools of health conducted, a Child Health Division established and an extensive program including prenatal care was instituted. A venereal disease prevention Division was created and a vigorous and effective warfare on social disease was waged. The scope of all existing Divisions was widened and the educational methods broadened. Colonel Martin resigned at the expiration of the term of Governor Sproul, which brings us to Dr. Charles H. Miner, the present Commissioner of health.



Meet Dr. Miner.

Dr. Miner comes from Wilkes-Barre where he has been engaged in general practice. He has for years not only been a student of, but has been prominently identified with, public health work.

He was made County Medical Director of Luzerne County at the beginning of Dr. Dixon's term and remained in charge of the public health administration of his county until his appointment as Commissioner of Health. When Dr. Dixon wished to establish a chain of tuberculosis dispensaries throughout Pennsylvania it was to Dr. Miner he turned for a plan of procedure. All the State Tuberculosis Dispensaries are today being operated after the manner of Dispensary No. 1, which was organized by Dr. Miner prior to the inauguration of the Dixon State Campaign against Tuberculosis.

Dr. Miner's many years of practical experience in the field have given him an intimate understanding of the public needs in regard to health. He will be handicapped by a reduced appropriation which the Health Department suffers in common with all other State Departments, but he will not be hindered, for he has worked out a plan of re-organization which by contractions in certain directions will permit expansions in others, so that the State Department of Health of Pennsylvania will continue to go forward and hold its accustomed place in the onward march of progress.

MILK REGULATIONS

by

Ralph E. Irwin, Chief, Milk Control Section.

There are no State regulations concerning milk sanitation. State legislation, however, does enable each municipality to provide for milk control, but only in a few instances has this authority been used. It was deemed advisable, therefore, to establish a milk control section in the State Department of Health, whose duty it would be to secure information pertaining to milk sanitation in the State, urge municipalities to assume the responsibility delegated to them and to assist in formulating practical local ordinances where such assistance is desired. There are regulations which are fundamental in all milk control, and an effort should be made to bring about uniformity in the regulations adopted by communities assuming the responsibility of control.

Complete milk control includes not only milk delivered by the distributor for household purposes, but also milk used for condensing, drying, and for the preparation of milk products, such as, ice cream, cheese, etc.

The milk control section has confined its activities to fluid milk used for household purposes and in public drinking places. About 45% of all milk produced is sold as market milk, either raw or pasteurized.

Milk control demands that a supply suited to the consumer's needs should meet the following requirements:

1. Milk shall have food value, to be useful.
2. Milk shall be safe, to prevent disease.
3. Milk shall be clean, to observe decency.
4. Milk shall have keeping quality, to be satisfactory.
5. Milk shall be fair in price, to insure production and consumption.

Food Value.

Milk is a necessity in the diet of growing children and unequaled in the promotion of health and energy in the adult. Wherever milk supplies are efficiently controlled, all health interests should unite to increase its consumption.

Considerable variation is found in the butter fat and other milk solids, such as sugar and casein, as these are affected by the breed of cows selected and the feeding and care of the herd. Also the food value of milk may be greatly changed with out detection by the consumer. State and municipal legislation have been necessary to control this condition. The State Department of Agriculture is charged with the enforcement of laws concerning minimum food values, the use of preservatives, etc.

The lawful minimum fat content of milk has been changed frequently. At present *3% butter fat is the legal minimum*. The fat content acceptable to the public is about 3.5%. The tendency now is to develop a breed of cows producing a large volume of milk containing not less than 3.5% butter fat. It is probably to the producer's financial advantage to sell a 3% milk, but it must be remembered that the producer receives only one-half or less of the price paid by the consumer. The consumer is demanding a product not only worth the cost of production, but also worth the additional cost of preparation and distribution.

Safety.

Milk is not always a food—it may be a poison—a transporter of disease causing loss of health and even life. Particular attention is now directed toward milk as a means of transmitting bovine tuberculosis, and typhoid fever and its allied diseases. When the thousands of sources of supply and the various methods of preparation and distribution are considered, the defeat of these diseases seems almost helpless. However, health officials recognized two methods of attack which were already in use by the milk industry, although for another purpose. Bovine tuberculosis is a scourge among cattle as human tuberculosis is among mankind. An effective attack is being directed against bovine tuberculosis through its detection by the tuberculin test and the separation of diseased cattle from those in good health. Herds thus freed from tuberculosis are at a

premium for breeding purposes, and this test is promoted by breeders to prevent the loss of valuable animals and to increase the value of cattle for sale. By taking advantage of this test and the conditions produced by its use, the dairyman is able to supply milk free from bovine tuberculosis. Certainly no dairyman desires to sell milk which will produce disease among his consumers, and especially among children, as it is the children who are most susceptible to bovine tuberculosis. The eradication of tuberculosis from the dairy herd is considered necessary by those who understand its value. Milk not known to be free from this infection should be pasteurized or treated in some way to make it safe.

Pasteurization.

As the centers of population grew, the source of milk supply was removed farther and farther away. Improved transportation could not fully overcome the increase in distance, and it became very difficult to deliver milk before it became sour. Gradually the heating and pasteurization of milk came into practice. In this way the souring of milk could be delayed two days or longer. Pasteurization for this purpose meant the heating of milk to a temperature only sufficient to keep it from souring for twelve or twenty-four hours after delivery to the consumer. Instantaneous heating or "flash pasteurization" was practiced as well as heating and holding, the degree of heat used depending upon the length of time it was desired to keep the milk after heated. Health officials, with an understanding of dairy bacteriology, quickly recognized that a method was at hand which might be used to insure the safety of milk as well as its keeping quality. After careful study and practical experimentation, it was found that heating milk to not less than 145°F. and holding at this temperature for not less than thirty minutes produced a milk safe from milk borne diseases. The margin of safety given by this method is sufficient for commercial purposes and in no way injures the market value of the product.

Thus it is seen that the tuberculin testing of dairy herds for milk delivered raw and the pasteurization of milk from untreated herds have placed bovine tuberculosis well under control. Also pasteurization, if properly carried on, will insure a milk free from other communicable diseases.

Factors of Safety.

It remains to place such additional safeguards about the two general safety methods just stated as will insure practical results. To safeguard a raw milk supply, it is not only necessary to have the milk free from bovine tuberculosis, but also such milk must be handled by persons free from communicable disease, and the containers must be free from infection. As adjuncts to these precautions, it is readily understood why a pure water supply is required for the dairy farm and a fly tight privy or cesspool is demanded. Likewise, those who come in contact with milk during or after pasteurization must be free from communicable disease, milk containers must be free from infection and flies and dust must not have access to pasteurized milk, treatment apparatus or containers prepared for filling.

The several factors mentioned are not required by State Law, but the State Law empowers cities, boroughs and townships of the first class to provide such milk regulations.

The responsibility for safe milk is a local one.

Cleanliness.

Clean milk and safe milk are not the same, although "the cleaner the milk the safer it is" may be regarded as an axiom. Clean milk may be regarded as milk of good flavor and appearance which may be used in the belief that the laws of decency have been observed during its preparation and delivery. The stable odor and the sediment souvenir are no longer characteristics of clean milk. The principal factor in cleanliness, as in safety is the human factor. Careful feeding, clean cows, clean hands, small top milking pail, thorough straining, prompt cooling and prompt delivery are factors in flavor, appearance and decency.

Keeping Quality.

The consumer desires milk that will keep sweet for twenty-four hours in the ordinary ice box. This demand for keeping quality, up to the present time, has done more to promote pasteurization than any other condition. Keeping quality has more to do with milk consumption than with safety. It is more a factor of quality and service. A sour milk may not be considered an unsafe milk. Poor keeping quality, however, indicates improper care.

Price.

A clean, safe milk is worth more in cash than unclean, unsafe milk; however, this fact is appreciated by only a small percentage of the people in the average community. The house-holder ordinarily buys the cheapest milk. So universal is this condition that a city of 100,000 will only purchase about 200 quarts of certified milk at 10¢ per quart above the usual market price, or 1000 quarts of clean, safe, raw milk at an advance of 2¢ per quart. In almost any community without milk control, an unknown distributor may enter the market and sell milk which is low in food value, unclean and unsafe at 1¢ per quart less than the usual price. Too many consumers consider price of first importance, keeping quality second, cream line third and forget cleanliness and safety entirely. Opposed to this is the fact that the consumer will quickly stop purchasing from a distributor, when it is discovered that a communicable disease has been traced to his milk supply. This method of eliminating unsafe milk, however, is too serious and too expensive both for the consumer and the distributor. It is apparent that the consumer cannot be relied upon to choose a safe, clean milk. Because of this, the distributor of clean safe milk cannot compete with a cheap, dirty milk. There is no financial stimulus to warrant the expense connected with the production of clean milk or safe milk. The producer is willing to furnish the quality of milk desired, if it will pay him to do so.

A herd tested for tuberculosis will probably have at least one reactor or tuberculous cow among every 10 cows tested. The tuberculous cow must be removed from the herd at a loss in cash. It costs money to install even a small steam boiler to cleanse utensils and bottles. It costs to analyze water and keep flies from filth. It takes time worth cash to keep cows, stables, yards, etc., clean and in a decent condition. The milk producer may not ask for an increase in the price of milk, he may simply ask that he be given protection for the investment required. This necessitates then, that the milk to be sold in a community shall in some way be defined in sufficient detail to guarantee fair competition among distributors. This can be brought about through the use of practical milk regulations. Should a community through an ordinance provide for the distribution of a raw milk and a pasteurized milk, some official in that community must be responsible for the sale of those two grades of milk according to the ordinance allowing their sale. No single factor so retards improvements in safety and cleanliness as the promiscuous sale of cheap, dirty, unsafe milk. These sales are more numerous during the spring and summer, when the legitimate distributor also has a surplus. The consumer, believing all milk alike, complains of the quality of milk received and restricts its consumption, thus lessening the demand for milk of good quality and denying a much needed food to those in the household.

The Health Gnome Says



*Milk is good for little girls,
Makes red cheeks and pretty curls,
It's good for little boys also,
Gives 'em pep and makes 'em grow.*

DEPARTMENT OF HEALTH NOTES

Colonel William J. Crookston has resigned as Chief of the Division of School Health, effective April 1, 1923.

Dr. Thomas S. Blair has resigned as Chief of the Bureau of Drug Control, effective April 1, 1923.

A complete digest of all the Health Laws of Pennsylvania is now in the process of preparation by James N. Lightner, Legal Advisor of the Department of Health.

Dr. S. Leon Gans has resigned as Chief of the Division of Venereal Disease Control, effective April 1, 1923.

Dr. Frank E. Sass of Boswell, has been appointed Acting Medical Director of Somerset County.

Hatfield, a town of 830 population, in Montgomery County, maintains a very effective supervision of milk supply. The health officer makes a semi-annual inspection of all dairies furnishing milk in the village and permits to sell milk are not issued, unless he finds a high standard of cleanliness.

Narberth, Montgomery County, population 3700, has combined with several adjoining townships to employ a full time milk supervisor. It would have been impossible for Narberth, or any of the townships individually, to have afforded this service. The scheme of combination of adjoining districts is good and will solve the problem of milk supervision for many towns and townships.

The borough of Yeadon, Delaware County, has a municipal ordinance requiring that all cellars be thoroughly cleaned and white washed annually. This ordinance has been strictly enforced.

The long looked for new Health Journal *HYGEIA* has made its bow. It is everything which was expected and more. Interesting to the physician, with sufficient avoidance of technical terms to be intelligible to the layman, it fills a needed want and deserves a wide circulation. The subscription price is \$3.00 per year, address American Medical Association, 535 Dearborn Street, Chicago, Illinois.

HELP!

The Restaurant Hygiene Section makes an earnest appeal for co-operation of all public health workers, especially County Medical Directors, Sanitary Engineers, Inspectors, Nurses and Social Workers connected with the State Department of Health, and offers the following suggestions:—

When you meet with any health official of a municipality, bring up the subject of Restaurant Hygiene. Ask if inspections of all public eating and drinking places are being made frequently, whether health certificates are being exacted, and if the Secretary of the Board of Health is making regular reports to the Restaurant Hygiene

Section of the State Department of Health. If they appear to exhibit a lack of enthusiasm on the subject or attempt to evade your questions, explain to them the danger the public is exposed to from insanitary conditions in public eating places; tell them how communicable diseases may be transmitted to unsuspecting persons by food handlers, who are diseased or carriers of disease germs.

The law requires every person employed in handling food and drinks served to the public (this includes proprietors and members of the family) to submit reports of medical examination.

Look out for common drinking vessels and roller towels in the wash rooms of hotels, restaurants and railway stations. When you see such conditions existing, call the attention of the proprietor to the unlawful practice and at the same time advise the Restaurant Hygiene Section of the State Department of Health.

At the close of the past year, a small percentage of boroughs was not credited on the Department records for Restaurant Hygiene work. There is no doubt that many of these places deserved credit, but did not receive it on account of the carelessness of the Secretary of the Board of Health in not sending in reports. The Department issued a form for this report which is very easily filled. This form, which provides for the number of places in the municipality, the number of times inspected during the month, the number of health certificates collected and the number of places complying with the requirements of the Restaurant Hygiene law, may be obtained free, upon application.

AN OBJECT LESSON

February 2, 1923.

John J. Jones, M. D.
County Medical Director,
Cairo, Pennsylvania.
Dear Doctor:—

Mr. John Brown, proprietor of the Swanp Root Hotel in Blank borough, which is located in your district, sent us a number of health certificates for himself, his daughter (who assists in the dining room) and a number of waitresses in compliance with the Restaurant Hygiene Law.

Among these health certificates, we find one in the name of Sarah Street, while this gives her a clean bill of health, we have been advised by a local Social Worker that this girl is under suspicion as being syphilitic. We therefore want you to get in touch with Dr. John Black, who signed the certificate, and ask him to make a more rigid examination of this girl and send us a report of his examination.

Thanking you in advance, I beg to remain

Yours very truly,

J. M. Delaney,
Chief, Restaurant Hygiene Section.

Mr. J. M. Delaney,
Chief, Restaurant Hygiene Section,
Pennsylvania Department of Health,
Harrisburg, Pennsylvania.

Dear Mr. Delaney:—

In reply to your letter of the second, which is in regard to the Sarah Street case, beg to say I called on Dr. Black and explained your request to him, telling him of the information received by you. He immediately got in touch with this party and found that upon a more rigid examination your suspicions were well-founded, and he requests that the original certificate be destroyed or returned to him.

I pointed out to Mr. John Brown, proprietor of the Swamp Root Hotel, that according to law it was his duty to discharge this girl from his services, which he immediately did.

I suggested that Miss Street report at once for treatment to the State G. U. Clinic which is located at the Hospital in her home town. I have since received word that she has reported and is under treatment. I will keep in touch with the case and advise you later.

Yours truly,

John J. Jones, M. D.

DISTRICT BOARD OF HEALTH ASSOCIATIONS

There will be a meeting of District Association Boards of Health No. 9, composed of the counties of Lackawanna, Luzerne, Pike, Susquehanna, Sullivan, Wayne and Wyoming, at Wilkes-Barre on May 9. The following program will be rendered:

Meeting called to order at 10 A. M.

Morning Session.

Address of Welcome.	Mayor of Wilkes-Barre,	5 Min.
Response	Judge Geo. Maxey, or Carbondale Mayor,	" "
Address	Dr. Chas. H. Miner	" "

Discussion:

How we can Supervise our Milk Supply Economically and Efficiently.

Mr. Ralph Irwin,	Department of Health.	5 Min.
F. S. Davis, V. M. D.	Nanticoke, Pa.	" "
Charles A. Zeller, M. D.	Dalton, Pa.	" "
Emory Lutes, V. M. D.	Wilkes-Barre, Pa.	" "

Questions from floor,

The Financial Needs of Health Boards.

L. H. Raymond, M. D.	Clark Summit, Pa.
S. D. Davis, M. D.	Jermyn, Pa.

P. B. Dempsey, Olyphant, Pa.
J. MacNulty Throop, Pa.

Each speaker to be allowed five minutes, and five minutes allowed for questions and comment from floor.

Cairo Board of Health.

Adjournment for lunch.

Luncheon Address William C. Miller, M. D., Department of Health.

Address J. T. Butz, M. D., County Medical Director,
Lehigh County.

Afternoon Session.

Business of Association, appointment of Committees, reports, etc.
Thirty Minutes.

Address 5 min. Rev. Archibald Herries, D. D., Tunk-
hannock, Pa.

Address: Law Enforcement Jas. N. Lightner, Legal Advisor, Penna.
Department of Health.

The Schools and Our Health Program,

W. F. Davison, M. D. Kingston, Pa.

Miss Louise McHale Olyphant, Pa.

Miss Jessie Cunningham, R. N. Wilkes-Barre, Pa.

Charles W. Sheldon, M. D.

Five minutes for all speakers, five minutes for discussion and questions from floor.

The Insanitary Privy, a Menace to Health Mr. Ivan M. Glace, De-
partment of Health.

Duties of a Health Officer. Miss Mary Pollen, Wyo-
ming, Pa. 5 min.

Restaurant Hygiene and Its Relation to Disease Control.

R. E. Buckley, M. D. Hazleton, Pa.

F. R. Wheelock, M. D. Scranton, Pa.

Thomas Hopkins, Pittston, Pa.

Five minutes allowed each speaker, and five minutes for discussion and questions from floor.

Diphtheria Control.

J. Bruce McCreary, M. D. Department of Health.

J. C. Reifsnyder, M. D. Scranton, Pa.

S. S. Watson, M. D. Moosic, Pa.

E. E. Edwards, M. D. Taylor, Pa.

Five minutes allowed each speaker, and five minutes for discussion and questions from floor.



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Penna. Department of Health

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CONTENTS

<i>Do It Now</i>	1-2
<i>Diphtheria Prevention in Cambria County</i>	2-4
<i>State Clinic No. 1</i>	4-7
<i>What One State Nurse Did</i>	7-8
<i>The Yardsstick of Life</i>	9-10
<i>Rabies</i>	10-12
<i>Water Danger</i>	12-14

"Acceptance for mailing at special rate of postage provided for in section 1103, Act of October 3, 1917. authorized April 6, 1923."

NOW

*"If you have hard work to do,
Do it now.
Today the skies are clear and blue,
Tomorrow clouds may come in view,
Yesterday is not for you;
Do it now."*

Anon.

The Listening Post

A MONTHLY JOURNAL OF PUBLIC HEALTH

EDITOR
William C. Miller, M. D.

Address communications to The Listening Post,
Pennsylvania Department of Health,
Harrisburg, Pennsylvania.

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No. 6

DO IT NOW

An Act of Assembly of Pennsylvania provides that the health affairs of boroughs shall be administered by Boards of Health, appointed locally, except in instances of Boards of Health being removed for cause, by the Commissioner of Health, when the enforcement of the health laws shall be under the direction of a Health Officer, appointed by the Commissioner. The municipalities of the State, with the exception of a few of the smaller ones, maintain Boards of Health in accordance with the law.

Health law enforcement, well conducted clinics and health centers, clean streets, good water, approved sewage disposal, garbage collection, protected milk supply, absence of flies and mosquitoes, in a large number of towns bear testimony to the efficiency of their local Boards. In other instances, unhappily too many, careless and slipshod methods of health administration reflect the indifference of apathetic Health Boards.

Unfortunately the efforts of a law abiding community are often handicapped by their less careful neighbors. For instance, the town of *A* may have some cases of communicable disease, but because it observes the laws of quarantine not only its own citizens but the inhabitants of other places are protected against its spread, while the town of *B* under similar circumstances, on account of their lax administration of quarantine, not only endangers its own citizens but becomes a menace to other places, where the people of *B* are accustomed to go.

It was, as a step toward correcting these and kindred conditions, that the District Board of Health Associations were organized but that is beside the point. There is no apparent reason why the Health Boards of Pennsylvania should not be like the Deacon's "one hoss Shay", one part as good as the rest, and there will never be a better time to start than right now.

Rome was not built in a day, neither can it be expected that a community which has been following the line of least resistance, so far as health matters are concerned, for a number of years, will be able to completely change its front over night, but it can at least make a beginning. If proper effort be put forth, time will do the rest.

In order that the careless community may become on a par with its more vigilant neighbor, it will be necessary not only to enforce the

health laws and regulations of the State Department of Health, but to encourage its inhabitants to take advantage of the additional means of protection against disease which have been supplied by medical research.

Small pox has been made negligible in Pennsylvania because of the protection afforded by the enforced vaccination of school children. Typhoid Fever has changed its place in the list from that of a common disease to a rare one because of State supervision of the public waters. Education has materially reduced the annual toll of tuberculosis. Now there is an opportunity to eliminate that terror of childhood, DIPHTHERIA. Children may be rendered permanently immune to diphtheria by the injection of three small doses, one week apart, of a substance called toxin antitoxin. In another place in this issue is described the method pursued in Cambria County's campaign against diphtheria, inaugurated by Dr. W. E. Matthews of Johnstown. Such a campaign could and should be conducted in every community in Pennsylvania. Don't put this off until next week, or next month, or next year. **DO IT NOW**—Remember you are working to save lives—**DO IT NOW**.

As it is necessary to obtain parental consent before the administration of toxin antitoxin, the first step of such a campaign must obviously be a canvass of the town to obtain the necessary signatures. A form something like the following may be used:—

I hereby request that
 a pupil in Public School be given the
 Parochial
 benefit of protection against DIPHTHERIA, by the in-
 jection of Toxin Antitoxin Mixture, without cost to me.
 Parent or Guardian
 Address

The State Department of Health Nurses are everywhere lending assistance in this campaign. If a public health nurse be not available to make the canvass, the town may be divided into sections and a committee of citizens assigned to the work.

DIPHTHERIA PREVENTION IN CAMBRIA COUNTY

The campaign against diphtheria in Cambria County was begun on May 18, 1922. At this time a public dinner was held by the Cambria County Medical Society in the Fort Stanwix Hotel, Johnstown, Pennsylvania. The purpose of this meeting was to bring before the people of Cambria County the value of the Schick Test and the importance of immunizing all children against diphtheria. All civic organizations of the county were represented, as well as school boards, boards of health, health officers, nurses, etc., Dr. Edward Martin, Dr. J. Bruce McCreary and Dr. W. G. Turnbull were present from the State Health Department. This was the first of a series of events to arouse public sentiment.

During the summer the subject of diphtheria prevention was kept before the people by newspaper articles, talks to Mothers' Clubs, Parent-Teacher Associations and other civic bodies. The physicians of the county talked to their patients about it and urged their co-operation and support. By the time the schools were opened in the fall, the people of Cambria County had been well informed concerning the Schick Test and toxin antitoxin immunization and were in such a state of mind that we were able to go ahead with the program as mapped out.

With the opening of the schools in September, the real work began. Franklin Borough was chosen as the ideal borough to begin with, as they employed a school nurse and the borough was small and easy to control. A public meeting was held. A committee from the Society appeared before the school board and received their endorsement and support. Permit cards were given to the children to take home for the consent of the parents or guardian. No child was immunized where the consent of parents or guardian was not obtained. The school nurse made a house to house canvass to explain the process to the parents and help secure their consent. About 75% of the children were signed up. The next step was that of immunization and on September 25, 1923, Dr. W. E. Matthews and Dr. Cartin, assisted by the nurses from the Red Cross, began to immunize over 400 children. The Health Department furnished the toxin antitoxin. The borough was completed in three weeks.

The work then moved rapidly, borough after borough requesting the Society to send physicians to do this work. The subject of toxin antitoxin became common gossip. Co-operation was manifested everywhere. The physicians of the Society all gave their time and efforts to the work and made our excellent results possible. About 7,000 children were immunized before the Christmas holidays. The same procedure was carried out in every borough.

The following boroughs, outside of the city of Johnstown, have received the immunization:—Franklin, Conemaugh, Vintondale, Beaverdale, South Fork, Summerhill, Ehrenfeld, Wilmore, Lilly, Portage, Cresson, Gallitzin, Nanty-Glo, Barnesboro, Dale, Westmont, Ferndale, Southmont, Spangler, Ebensburg, Lloydell, Portage township and the Christian Home in Johnstown. The number of children immunized in the different places range from 75 to 1600, and the percentage 45 to 96.

The honors so far go to Vintondale. 96% of all the children in that town have been immunized against diphtheria. This record is due to the work of Dr. McFarlane, who personally went out among his people and explained to them the value of diphtheria immunization and secured the signing of the permits. From unofficial counts, about 15,000 children have been immunized in Cambria County.

The work is still going ahead and other boroughs and townships are being brought into line. It will be continued until all the children in the county, whose parents are willing, shall have been immunized. The members of the medical society are also making efforts to immunize the child of preschool age, when the period of mortality from diphtheria is at its highest. So far as we know, no child who has been immunized for more than three months, has had diphtheria, although we have had several cases where the child has contracted the disease in two or three weeks following the injections.

The campaign has been very successful and much of this success has been due to the support given by every member of the Cambria County Medical Society. Much work has been done and much more remains to be done before our task is completed.

STATE CLINIC No. 1

Some seventeen years ago, the Wyoming Valley Tuberculosis Society, an organization of public spirited citizens of the anthracite region of Pennsylvania, decided to open a free clinic for the tuberculous poor at Wilkes-Barre. To Dr. Charles H. Miner, now Commissioner of Health of Pennsylvania, was delegated the responsibility of its organization and administration.

A corps of nurses was employed, not only to assist in the examination and instruction of patients at the Clinic, but to make personal visits to the homes of patients and instruct them in the proper mode of living, which included lessons in diet, ventilation, cleanliness, sleeping arrangements and the necessary care which must be observed by tuberculous patients to protect other members of the family from the disease.

When the Pennsylvania Department of Health was created, the attention of Dr. Samuel G. Dixon, the first Commissioner of Health, was attracted to this now completely organized and smoothly running Clinic. So well was he pleased with the plan of its organization that he made overtures to the Society, to the effect that the Wilkes-Barre Clinic be taken over by the Commonwealth as one of a proposed state wide system of similarly operated Clinics.

The Society generously relinquished the work in the interest of the great common good, and the Wilkes-Barre Clinic became a part of the State Department of Health and was known, as at present, as Clinic No. 1.

At first the entire time of the Clinic was taken up with the care of tuberculous patients, but with passing years and increasing public needs, the scope was widened, so that now in addition to its original program, the Clinic has hours for child health, genito urinary, nose and throat, prenatal and mental health, the latter under the auspices of the Public Welfare Department. There is also a nutrition class which has been productive of noteworthy results.



NUTRITION CLASS
(WILKES-BARRE STATE CLINIC)

Dr. Sara D. Wychoff, who has supervision of the Nutrition Clinic, has placed nutrition classes in a number of the schools of Luzerne County and, in consequence, 9,000 children are being served milk daily.

The social service section of the Clinic secures relief for indigent families through the various avenues of charity and helps the unemployed to obtain work.

The county co-operating with the Genito Urinary Clinic, furnishes a detention ward for venereal cases in the county prison. During the past year the average of girls in this ward was fourteen. The county pays the nurse in attendance. Girls are held in the detention ward, until they are cured or the disease is rendered non-transmissible. This is usually 30 or 40 days.

Every effort is made to rehabilitate these unfortunates. None are released until some definite program is outlined, by which they may obtain a legitimate living. Such as are mentally unfit are examined by the mental health physician, Dr. H. V. Pike of Danville, and are transferred to institutions suitable for their care.



SCHOOL OF MIDWIVES
(WILKES-BARRE STATE CLINIC)

Another feature of the Clinic is the organization of a class in midwifery under the tuition of Dr. Kocyan. Luzerne County has a large foreign population and, in accord with their native custom, midwives are extensively employed. The improvement in their methods, as the result of the special instruction, is markedly evident.

An idea as to the popularity of the Child Health Clinic, under Dr. Wychoff, may be obtained from the accompanying cut.



STATE CHILD HEALTH CLINIC
(WILKES-BARRE STATE CLINIC)

In this Clinic none except well babies are received. Mothers are instructed concerning their care, diet and clothing. Cases requiring special treatment are referred to family physicians.

Dr. Louisa Blair, in charge of the Nose and Throat Clinic, and Dr. P. P. Mayock, in charge of the Genito Urinary Clinic, co-operate at all times with other social service activities of the city. A detailed account of the Venereal Disease Prevention Clinic will appear later. All public health nurses of Wilkes-Barre meet weekly at the clinic headquarters to co-ordinate their work and prevent overlapping.

The tuberculosis clinics at Hazleton, Nanticoke and Pittston and the well baby clinics at Hazleton, Pittston, Dupont, Duryea, Mocan-aqua, Lee and Dallas are offshoots of the original Clinic at Wilkes-Barre.

WHAT ONE STATE NURSE DID



"Do everything you are paid to do and then some," this is the rule of life of Miss Alice O'Halloran and its extension to her corps of nurses has made them a power for public health in Pennsylvania which is beyond estimate.

A notable example of how these nurses work comes to us in the report of a recent Health Educational Campaign in Western Pennsylvania.

Miss Anna M. King of Monessen, Clinic 86, staged a motion picture health week for Belle Vernon, Charleroi, Monessen and Fayette City, four populous towns in the thickly settled bituminous region of Pennsylvania.

Early in February Miss King asked for the use of the Department of Health films on tuberculosis, small pox, house fly, child welfare, teeth, cancer, rat menace and the men's and women's lecture films on venereal disease, for the entire week beginning March 12th.

To fill such an order would almost exhaust the Department Library, but Miss King was so enthusiastic in regard to her plans and so insistent upon having the films, that her request was complied with, and now comes the report:

There are six motion picture theatres in the four towns with seating room for 4,000 in the aggregate. They each give three shows a day and are usually filled to capacity at each presentation. Miss King arranged with the managers of the different theatres to run two reels of health pictures with each show. This they were enabled to do through a system of exchange devised and superintended by Miss King. Thus during the week, educational health pictures were shown daily to about 12,000 people, the majority of whom, if left to follow their own inclinations, would not have walked across the street to see a health picture.

Here is a letter—for obvious reasons we withhold the signature—

Fayette City,
March 26

State Department of Health.
Dear Sir:—

I saw your picture on cancer last week. My Mother has had a sore on her lip for a long time. I took her to the hospital yesterday. The doctor said it was not too late. Thank you.

Mrs.

And another:

Dear Health Dept:

The picture I saw at the Coyle last week sent me to the doctor. He said I have syphilis but I can be cured. I wont sign my name, but I am grateful.

Yours,

And there are others. The pictures on venereal diseases were shown at special hours to segregated audiences. The theatre managers donated the theatres and the physicians of the several towns paid the overhead expenses. Thanks are due to the following theatre managers for their co-operation:—

Mr. Mell, Fayette City
Mr. Bello, Belle Vernon
Mr. Rosenbloom, Charleroi

Mr. Barnhart, Charleroi
Mr. McShaffery, Monessen
Mr. Lotus, Monessen



The Health Gnome Says —

*Some towns are poor and some have wealth,
Some have sickness, some have health,
Some are fast and some are slow,
Some don't know which way to go,
But every town is in reverse
Unless it have a public nurse.*

THE YARDSTICK OF LIFE

By Wilmer R. Batt, M. D.,

State Registrar, Bureau of Vital Statistics.

Our daily news columns tell us from time to time of the rise and fall in the prevailing market prices on foods and other essential commodities; of crop conditions, of the quality, of the surplus; of the weather and other factors which affect production.

Life and health are surely essential commodities. They are purchasable to a very great extent just the same as wheat and corn are purchasable. The purchase may be by individuals or commodities, and quantity and quality are capable of expression. We may buy wheat by the bushel, butter by the pound, or cloth by the yard,—the relative price we pay depending upon quality. Individually we buy life by the calendar, the length of life expressed in years, months and days. Collectively we express it by a mortality rate, and health by a sickness or morbidity rate.

Some time last year Pennsylvania's population passed the nine million mark. This means that one-twelfth of all the people of the United States live within its borders. This makes the vital statistics of Pennsylvania of particular significance.

Deaths in Pennsylvania from all causes during the calendar year 1922 were 110,700 giving a death rate of 12.4 per 1,000 of population. This was almost identical with the rate of 12.3 for 1921, which was the lowest in the history of the State, and compares with 15 as the average rate for the previous fifteen years.

With the single exception of Measles, every important communicable disease showed a decline both in incidence and in mortality as compared with the previous year.

Deaths from Typhoid fever numbered 423, giving a death rate of 4.7 per 100,000 of population as compared with 7.3 for 1921. In 1906—3,917 persons died from this disease, and the average number of deaths for the fifteen years previous to 1922 was 1553 with an average mortality rate of 19.4.

From Scarlet fever there were in 1922,—354 deaths with a death rate of 3.9 per 100,000 of population. The average number of deaths for the fifteen years previous was 632, and the average death rate was 8.0.

Diphtheria deaths numbered 1,501 with a death rate of 16.7 as compared with an average of 2,122 deaths for the fifteen years previous, with an average death rate of 24.6. The percentage of deaths from diphtheria in relation to the total number of cases was 9. This is a marked reduction in case rate fatality as in previous years the rate has varied from 10 to 17.

Deaths from Measles numbered 699 with a mortality rate of 7.8, as compared with 442 deaths and a mortality rate of 5.0 for 1921. The average number of deaths for the fifteen years previous was 937, the average rate being 11.8.

Tuberculosis in all forms caused 7,940 deaths with a death rate of 88.4 per 100,000 of population, as compared with an average of 10.400 deaths and a death rate of 129.3 for the previous fifteen years.

The Infant mortality rate was 85 per 1,000 births. This is the lowest rate ever recorded in the history of the State. The average rate for fifteen years was 121.

The Birth rate for 1922 was the lowest recorded for a period of fifteen years, being 23.8 per 1,000 as compared with 25.9 in 1921. This represents a decline of 15,000 in the aggregate number of births.

The decline in the birth rate is a reflection of changing social and economic conditions. The comparatively high rate of 1921 following the low rates of the three preceding years was the natural result of the return of married soldiers to family life and the consummation of marriages postponed during the war period. The marriage rate of 1920 was the highest in ten years. The restriction of immigration during and following the European War has also decreased the proportion of foreign born women who contributed heavily to the birth rate, while the earlier female immigrants are gradually passing out of the active child-bearing ages.

The decline in the birth rate for 1922 was not peculiar to Pennsylvania—it was a condition common to the country at large. The decline in the death rate has, however, maintained the average yearly natural increase of population at something more than 100,000.

RABIES

By Roy G. Miller, Chief,

Div. Supplies and Biological Products.

Rabies at the present time is common in the Southern States, and in Pennsylvania it is more prevalent than is generally believed.

Recently a little girl living in West Conshohocken was bitten by a vicious dog.

The parents of the child, suspecting the animal to be mad, immediately sent for a physician who cauterized the wounds, and ordered the dog placed in quarantine.

Two days later, when the dog showed symptoms of rabies, Pasteur Treatment for the child was promptly supplied by the Pennsylvania Department of Health.

Persons bitten by animals suspected of rabies should at once secure the service of a competent physician.

The invariable rule is to use every effort to get the virus out of the wound to prevent absorption and to cauterize at once.

Early and thorough cauterization retards the development of the disease, and thus renders the Pasteur Treatment more certain of effect.

The Pasteur Treatment is a preventive treatment. There is no known cure for rabies.

The treatment should begin as early as possible after the infliction of the bite or wound.

The average period of incubation (the time which passes between the inoculation with the virus and the appearance of the symptoms) varies, depending on the site and severity of the wound. It is usually from 21 to 40 days and is generally shorter in children than in older persons. The reason for this is, that children, on account of their lesser height, when attacked by dogs are more apt to be bitten on the head or face which contain a more abundant nerve supply than other exposed parts of the body.

WHAT TO DO WITH THE ANIMAL

An animal suspected of rabies should not be killed, but kept securely confined. If it has the disease, it will soon exhibit characteristic symptoms and die within a few days.

If the animal has been killed, the head, with the neck attached if possible, should be sent to a laboratory equipped for making examinations of the kind. The Pennsylvania Department of Agriculture, Bureau of Animal Industry, Harrisburg, Pennsylvania, has such facilities.

CAUSES

The most frequent source of rabies is the dog. Its saliva is virulent one or two days before the animal shows symptoms of illness.

The disease may be transmitted by deposits of saliva, containing the virus, on raw surfaces as by licking.

PREVENTIVE TREATMENT

The spinal cord of a rabbit, inoculated with fixed virus, is cut into small segments and the pieces dried to various degrees. The pieces dried longest contain the weakest organisms. The weakest segments are ground into a fine emulsion and injected into the body of the patient. This stimulates the formation of antibodies or elements antagonistic to the disease. The treatment is continued by giving stronger doses each time until the full strength has been attained.

For the convenience of hospitals and practicing physicians, the State Department of Health carries in stock at all times, the Pasteur Treatment for immediate use, and will supply it at State contract prices.

The complete treatment includes the administration of from 21 to 25 injections, covering a period of 18 to 22 days.

The variation in the treatment depends upon the location and severity of the bite. Each small vial, containing the undiluted emulsion, is labeled showing the number of the dose it contains. It is very important that the doses be given in the order in which they are numbered, beginning with Dose 1 and continuing in regular sequence to the end of the treatment.

These doses will be sent in proper sequence each day, by special delivery mail, until the entire course of treatment has been covered.

WATER DANGER

By W. L. Stevenson, Chief,
Engineering Division.

In 1906 the typhoid death rate in Pennsylvania was 54.8 per 100,000 and in 1922, it was 4.3.

This 92% reduction means that 50,000 lives have been saved during the 17 years that the Commissioner of Health has had jurisdiction over the quality of public water supplies, sewerage and the conditions under which sewage may be discharged into the waters of the State.

Loathsome as the thought is, the fact remains that every case of typhoid fever is caused by the patient having taken into his mouth the germs of typhoid fever, which were discharged with feces or urine from the body of another person.

Among the many ways in which this comes about may be mentioned the exposure of excreta in improperly constructed or maintained privies, whereby flies are able to convey the filth and the germs to food stuffs and also unpurified or inadequately purified water supplies, obtained from sources which have received sewage and from springs and wells contaminated by human excreta, either by surface or underground pollution.

It was to control these matters that the "Purity of Waters Act" was approved April 22nd, 1905, which gave to the Commissioner of Health jurisdiction over the quality of the public water supplies and sewerage, and the conditions under which sewage may be discharged into the waters of the State.

At present 650 waterworks deliver water supplies to about 6,000,000 people in the State, and 88% of these waterworks use surface streams as their source of supply.

Some communities are so situated that they can obtain their water from almost uninhabited watersheds, where the danger of the contamination of the surface water is reduced to a minimum.

But many towns must of necessity obtain their water supply from surface streams draining populated districts, and hence to produce a safe and wholesome supply, the water of the stream must be filtered and, as a further safeguard, sterilized with a germicide.

Therefore, the Commissioner of Health must determine in each particular instance, whether the means proposed to purify the surface water are adequate to produce a safe water, and thereafter to require that the waterworks are so operated as to accomplish the required results.

Thus it is seen that the streams of Pennsylvania furnish the majority of its citizens with drinking water, and the health of these people is safeguarded by the State Department of Health.

The elimination of the insanitary privy and the over-flowing cess-pool, which constitute a serious menace to the public health through the exposure of human excreta in proximity to dwellings, is best brought about by the installation of a sewer system.

Sewer systems are designed to carry away from the buildings of a town the spent water supply made dirty by use in dwellings and factories, and hence containing the excreta discharges of the people.

The prompt underground removal of the sewage of a town by means of sewers, constitutes a safeguard to the health of the citizens, but if the sewage is thereafter improperly disposed of, it may in turn create an equally great menace through stream pollution.

Such stream pollution is caused by three characteristics of sewage, to wit: The undissolved solids which settle in the stream and form deposits or float on the surface as scum, also a large part of the solid matter in sewage is organic in origin and subject to decomposition, hence the offensive odors which are emitted from sewage laden water courses.

These two conditions create a nuisance, interfere with the comfort of nearby dwellers, and prevent the normal use of such streams for domestic or industrial purposes.

The menace to health from such sewage polluted streams is caused by the presence therein of disease producing germs contained in the sewage from human excreta.

The remedy is the proper treatment of the sewage before its discharge; such treatment may consist in the separation of the solids from the liquid portion, and the removal or the modification of the decomposable constituents and in disinfection.

The separation of the solids from the liquids may be accomplished by passing the sewage very slowly through sedimentation tanks, wherein the solids are deposited on the bottom of the tank as a dark colored watery mass called sludge, while the liquid portion flows from the outlet end of the tank.

The modification of the decomposable constituents may be secured by spraying the liquid effluent of the sedimentation tank over beds of broken stone. The surface of the stones becomes covered with a layer of bacteria which, in the presence of oxygen from the air, have the power of converting the decomposable organic substances in the sewage to stable mineral compounds which do not putrefy.

The disinfection of the germs in the effluent of a sedimentation tank, or of such an oxidizing process, may be done by the addition of a solution of chlorinated lime.

The results accomplished by these artificial processes of sewage treatment may also be obtained in natural bodies of water.

For example, consider the discharge of a small amount of sewage into a relatively large stream, having a good velocity of flow and not used as a source of water supply, or for bathing or ice harvesting.

The solids in the sewage are carried forward by the velocity of the stream and ultimately so dispersed as to be negligible.

The decomposable constituents are changed to a harmless condition by the bacteria and oxygen present in all natural waters, and the pathogenic bacteria die, because they are in an environment unfavorable to their normal conditions in the human body.

These processes collectively are called sewage disposal by dilution.

It can, therefore, be seen that the degree to which sewage need be artificially treated before discharge, in order to maintain the streams in a cleanly condition and not to menace the public health, is determined by the use and condition of the receiving body of water.

In a densely populated and industrial state like Pennsylvania, it is futile to ever expect to restore the streams to their pristine purity.

Even to maintain them in a cleanly condition and such as are used as sources of public water supplies, in a fit condition, entails the expenditure in the aggregate of large sums of money for construction and annual charges.

It is the policy of the Engineering Division to give due heed to these economic problems in determining the requirements imposed in sewerage permits, and thus to secure the maximum protection to the waters of the State and to the public health, at the least expenditure of funds for both purification of water and treatment of sewage.

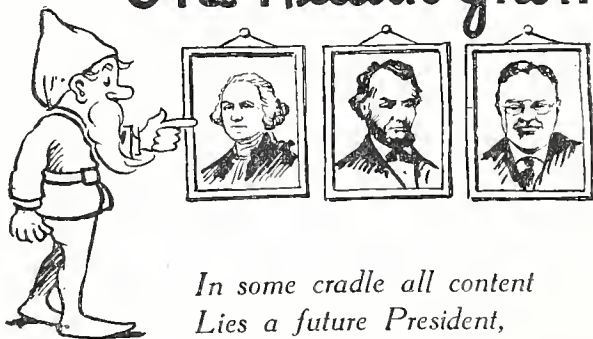
For example, laboratory investigations and field observations have shown that the acid mine drainage of coal mines is a natural germicide to the sewage bacteria, and that where there is a sufficient flow in such acid streams that nuisance conditions do not develop—therefore, where these conditions obtain, permission has been granted for the discharge of untreated sewage at a considerable saving of municipal funds, and no apparent detriment to the already injured water of the stream.



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Penna. Department of Health



The Health Gnome Says



*In some cradle all content
Lies a future President,
Rocks and sleeps in calm repose,
But just which cradle no one knows.
Watch your own with every care---
Perhaps a President is there.*

The Listening Post

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"AS THE TWIG IS BENT"

That "the training of a child should begin with its Grandparents" has formed the text for many a platform lecture. It sounds well and, like many other trite expressions, it is usually accepted as an axiomatic truth from which there is no appeal.

The average Grandparent of today is 50 years old or thereabouts, but because the Fathers and Mothers of 1873 peradventure may not have been overly well informed about many of the things now considered indispensable to the proper up-bringing of the baby, we need not regard as hopeless the making of a strong and vigorous youngster out of even an ill conditioned infant, for regardless of the opening statement and the handicap of untrained Grandparents of the vintage of '73, it is altogether possible with proper management to get quite satisfactory results, so far as growth and health are concerned, for the babies of 1923.

As to mentality and traits of character, we would probably have to go back very much farther than Grandparents and would find ourselves dealing in eugenics—which is very deep water. So let us not bother ourselves about peoples and times which have gone, but give our whole attention to the present needs of taking care of the babies as given to us and making the best of the situation as we find it.

There can be no doubt that the diet of the expectant mother exercises an important factor in the baby's start of life; this should be regulated in accordance with advice from a physician, so that it contain a sufficiency of the elements which go to make up nerve and muscle tissues and the bony structure including tooth buds.

At birth and thereafter, the doctor is the judge and advisor.

If a doctor cannot be had, the baby should be taken to a well baby clinic.

Start early to train the baby in habits of regularity—regular meals—regular sleep—regular bowel movements and later regular study—regular work—regular play and you will have the "makins" of a regular man or woman, who will occupy a place in the world.

It may perhaps be gratifying to be able to say: "My ancestors came over in the Mayflower," but it is infinitely more constructive, if twenty years hence you can say: "By the careful management of my baby, I have given the world a man."

TO THE MEN OF AMERICA

By Miss Rose Trumbull

You talk of your breed of cattle,
 And plan for a higher strain,
 You double the food of the pasture,
 You heap up the measure of grain;
 You draw on the wits of the nation,
 To better the barn and the pen;
 But what are you doing, my brothers
 To better the breed of men?

You boast of your Morgans and Herefords,
 Of the worth of a calf or a colt,
 And scoff at the scrub and the mongrel,
 As worthy a fool or a dolt;
 You mention the points of a roadster,
 With many a "wherefore" and "when,"
 But, ah, are you conning, my brothers
 The worth of the children of men?

You talk of your roan-colored filly,
 Your heifer so shapely and sleek,
 No place shall be filled in your stanchions
 By stock that's unworthy or weak,
 But what of the stock of your household?
 Have they wandered beyond their ken?
 Oh, what is revealed in the round-up
 That brands the daughters of men?

And what of your boy? Have you measured
 His needs for a growing year?
 Does your mark as his sire, in his features,
 Mean less than your brand on a steer
 Thoroughbred—that is your watchward,
 For stable and pasture and pen;
 But what is your word for the homestead?
 Answer, you breeders of men!

—The Gideon.

HOW TO CARE FOR BABIES

By Dr. Mary Riggs Noble, Chief and Dr. J. D. Donnelly, Associate Chief, Div. of Child Health, Pennsylvania Department of Health.

PRENATAL CARE

"A comfortable pregnancy, a safe labor and an uneventful recovery" is every mother's right with every child she brings into the world.

Motherhood is natural and normal. At the first sign of pregnancy a physician should be consulted or a visit made to a prenatal clinic for a complete physical examination and general advice. There are simple things to understand that every mother should know. These she may learn from the doctor, the prenatal clinic or from the nurse.

Pelvic measurements should be made early in the pregnancy to determine whether abnormalities exist which will give rise to difficulties later on. The internal obstetrical examination should come after the seventh month. If the advice of the doctor or nurse is followed there is no reason to worry over pregnancy.

DIET.

The ordinary diet that agrees need not be changed during pregnancy. Things definitely known to cause indigestion and over-eating should be avoided. Several glasses of water should be taken during the day. Plenty of milk should be drunk. Milk soups, eggs and brown beans should be eaten sparingly. Tea and coffee should be taken not more than once a day. Plenty of fruit and green vegetables, both cooked and raw, should be eaten.

SLEEP.

At least 8 hours every night with windows open.

EXERCISE.

Regular housework is desirable exercise with frequent short rests, lying down for perhaps five minutes at a time. A daily walk out of doors is good. Plenty of fresh air in the house and sleeping with wide open windows are desirable; windows may be kept open while the housework is going on. Heavy work or any efforts that seem to strain should be avoided.

BATHING.

An all-over sponge every day with warm water should be the habit. It is not considered desirable to take a tub bath after the seventh month.

CLOTHING.

The clothing should be light and comfortable with no constricting garments. Stockings should be suspended from corsets or proper suspenders. Round garters are undesirable.

CONSTIPATION.

A glass of hot water before breakfast or a cup of coffee with no cream and sugar may prove to be sufficiently laxative. Hot milk may be taken with breakfast. There should be a regular time for the visit to the toilet, preferably directly after breakfast daily. Coarse breads, stewed fruits and the drinking of 6 or 8 glasses of water during the day are aids to regularity. A simple formula for a laxative is to cook 5 cents worth of senna leaves with a pound of prunes and eat four to six prunes every day.

IMPORTANT.

Danger signals which should be reported to the doctor, or nurse, at once:-

Persistent headache
Spots before the eyes
Swelling of the face and hands
Constipation
Scanty urine
Abdominal cramps
Pains before the time the baby is expected
Bleeding—no matter how little.

Baby clothes should be ready, and all the mother's special needs provided for, by the eighth month.

EVERY EXPECTANT MOTHER SHOULD HAVE:—

1. Complete examination, including pelvic measurements early in pregnancy.
2. Her urine examined regularly—every 2 weeks 'till 8th month, then every week.
3. Her blood pressure taken regularly.
4. A Wassermann blood test if possible.

TEETH.

Keep the teeth preserved and clean by brushing with tooth paste, or soap and warm water. Rinse the mouth with weak soda water after meals. Rinse mouth with milk of magnesia at night. Have prompt dental care for cavities in teeth, and for sore gums.

BATHING THE BABY

The baby should be bathed every day; for this there should be provided a small tub, or a large basin, kept scrupulously clean, and used for nothing else. The room in which the bath is given should be warm (70°) and not drafty. The temperature of the water should not be more than 100°—better 95°. A bath thermometer is not costly and makes for exactness. To test the water without a thermometer,—if it feels comfortably warm to the nurse's elbow, it is right. As soon as the cord has dropped, the baby is immersed in its bath supported on the left arm of the nurse. It should never be left alone in the tub. Three or four minutes is long enough for the bath to last. A soft wash-cloth and castile soap should be used. The baby, on being lifted out, is placed on the lap-pad (made as an apron from a piece of a soft, old blanket), and dried quickly with a soft towel. The bath should come preferably in the morning just before feeding time, so that, after it, the baby will be ready for its food and a long sleep. Shield him from drafts after a warm bath, as he is more susceptible to cold then. Never fear that bathing will cause cold. Colds do not come that way, unless he is chilled, and there is no reason for letting him be chilled.

The bath should be made less and less warm, as the baby grows older, growing tepid, then cool, and as he begins to walk, still cooler. A cold sponge is a good life habit for every one. It makes for health, strength, and beauty.

BIRTH REGISTRATION.

Out of the 48 states of the United States only 25 have birth registration. So important is this matter of getting every birth registered officially, one of the great national associations considers it quite worth while to go out in a campaign of agitation in the states, which as yet are not in the registration area.

Every baby birth should be registered for the following reasons:—

- To prove his right to go to school.
- To prove his right to work.
- To prove his right to marry.
- To prove his right to enter the army or navy.
- To prove his right to inheritance.
- To prove his right to vote.
- To prove his right to passport.
- To prove his right to definite insurance rates.
- To prove his right to employment and protection.
- To prove the mother's right to a pension.

REGISTER YOUR CHILD'S BIRTH NOW.

“We've registered our incomes,
Just as the law demands;
We've registered our autos,

Our homes and our lands ;
 We've registered our motor boats,
 At Uncle Samuel's call—
 Then why not register the most
 Important thing of all?
 We've registered our incomes,
 Our horses and our mules ;
 We've listed all our property
 According to the rules ;
 We've counted all our country's wealth,
 Our cattle, wheat and corn—
 But no one knows how many
 Future citizens are born.
 Now since we've inventoried
 'Most everything on earth,
 Why don't we take some notice
 Of a human being's birth?
 And while we count each side of beef
 And every ton of coal,
 Why don't we count that priceless thing,
 A new-born human soul?"

FEEDING.

The food necessary to supply everything that is needed for the baby's growth and development is best created for him in the breast of his mother. It is the natural food of babies, the **ONLY** one made just for them. For the baby, breast feeding is the best form of life insurance.

Have the baby nurse regularly, every three or four hours—no oftener. After the fourth month the night feeding may be omitted. It is well to alternate the breasts at each feeding as when both breasts are used at a single feeding they may be only partially emptied. This is one reason for milk "drying up", as it is with cows whose bags are not entirely emptied at milking. Breast feeding should be continued until the ninth month.

Breast milk may be maintained or increased by having the baby empty the breast at each nursing. If the baby fails to do this the mother should scrub her hands with soap and warm water, then grasp the breast firmly with the thumb in front and the forefinger under, just back of the areola, and with a motion "back, down and out" eject from the breast any remaining milk. This milk should be collected in a clean glass, previously boiled, and given to the baby. It is not necessary to touch the nipple itself.

The nursing mother should avoid late hours and all sources of nervous excitement and worry.

If after complete emptying (the "manual expression" method) has been tried thoroughly there is still too little milk, give the baby a bottle after each nursing to make up the deficit in quantity of breast milk. Do this under the doctor's guidance.

Occasionally articles in a mother's diet will affect her milk and so in turn may cause eczema in her baby, the result of sensitization. If this occurs omit such things as eggs and cereals, then add them one at a time to the mother's diet, at intervals of five days, and observe the effect on the baby. If no results be obtained, omit meats, then vegetables and replace them one at a time. Breast-fed babies are less apt to have local disturbances than bottle-fed.

When breast-feeding is impossible, cow's milk is the next best food. The feeding of a bottle-fed baby should always be under the direction of a physician who will prescribe the exact proportion of milk, sugar and water as well as the quantity. Trying to follow the neighbors' advice on feeding may help kill the baby.

Milk should always be fresh and sweet and come from a clean dairy—bottled—and from a tuberculin tested herd. Milk must be kept cold on ice. When fresh milk or ice can not be had, canned or dried milk should be used. Bottles, nipples and utensils used in preparing feedings must be thoroughly washed and boiled. Clean hands are essential. Never let flies and mosquitoes touch anything that goes in the baby's mouth or is used in preparing his feedings.

All babies, particularly bottle-fed ones, should be given orange juice daily. Begin with a teaspoonful diluted with an equal part of water and increase to the juice of a whole orange by the sixth month.

Strong bodies are built from good food. Food alone will not insure growth, there must be also plenty of fresh air, sunshine, rest and sleep to help build up a strong body.

Weaning.

Babies should be weaned preferably at from nine to twelve months. Hot weather is, however, an unfortunate time to wean and it is better to postpone making the change until the cooler weather arrives.

Keeping of milk and other foods in the hot season is much more difficult and contamination takes place with much greater ease, and since digestive disturbances in infants and young children most easily attack the children when the temperature is high, continuation of breast and bottle feeding is a lesser disadvantage than running the risk of gastro-intestinal upsets.

After a child has been weaned he requires three wholesome meals a day, at regular hours, with nothing between meals except milk. He needs, between meals, about a quart of milk daily.

Milk and green vegetables make bones, muscles and teeth. Meat and eggs are the great muscle builders. Bread, cereals, starchy food and desserts give strength and "pep" for work and play.

Children must be taught to eat slowly and chew their food well.

Serve the hearty meal at noon with a light supper in the evening.

Between the second and third years minced chicken, mutton and tender beef may be added to the diet. After the third year they can usually eat, safely, tender meats and bacon cut in small pieces. Fresh and stewed fruits, simple puddings, jellies, custards, honey, plain sponge cake and vanilla ice cream make suitable desserts after the third year.

Do not give children tea, coffee, fried foods, greasy gravy, pastry or fresh breads.

The summer heat is hard on babies, it weakens them and makes them susceptible to digestive and bowel disturbances. Overfeeding, impure or spoiled milk or too strong a milk mixture are the chief causes of vomiting and diarrhoea at this time of year. During the summer, lengthen the intervals between feedings, boil the milk for 3 minutes, stirring it constantly while boiling and dilute the mixture one-third to one-half with boiled water. Between feedings give plain boiled water. Orange juice should be continued—it is not solely a laxative.

When curds appear in the bowel movements or when there are three loose passages a day, call your physician. Save a portion of the stool so that he can see the type of bowel movement. Prompt regulation of feeding by the physician usually prevents further trouble. When vomiting or watery and greenish, slimy bowel movements occur, stop all food, and send immediately for the physician. Meantime, give the baby nothing but plain boiled water, in the same amount and at the same intervals as the feeding. Usually, all food is withheld for twenty-four hours.

In older children, unripe or overripe fruit and indiscretions in diet are the most frequent sources of indigestion and diarrhoea. When it occurs, stop all food, keep the child in bed, give him an ounce of castor oil and plenty of water by mouth. When the physician arrives he will prescribe and direct further treatment.

IF THE BABY BE BOTTLE-FED.

Be sure the milk is from healthy cows, and kept clean. A speck of dirt in the milk should keep you from accepting it.

Be sure to put the milk, covered, in an ice-box or refrigerator, as soon as delivered.

Be sure no fly has touched the milk you give the baby. Flies carry diseases.

Be sure to scald the bottles or jars in which the milk is kept. Cool before filling.

Be sure to use round nursing bottles, not flat ones; have them graduated, and with wide mouths.

Be sure that the rubber nipples can be turned inside out for cleansing at least once a day.

Be sure that the nipple-end is completely filled with milk while the baby is nursing. Sucking in air causes colic.

Be sure to wash the bottles and the nipples at once after using,—first in cold water,—then in hot, with soap suds,—and then rinse in cold water.

Be sure to rinse the rubber nipples thoroughly in cold water immediately after using, and then drop them in to a covered glass containing boric acid solution, a teaspoonful to one half pint, boil them every day.

Be sure to have a separate bottle for each feeding.

Be sure to allow 10 to 15, and not more than 20, minutes for the baby to empty the bottle.

Be sure to tell the doctor if you are in doubt whether the baby's food is agreeing with him.

Be sure to ask the doctor or nurse for instructions as to the baby's diet after the first month.

Be sure not to waste your money on patent foods and condensed milk, unless ordered by the doctor.

Be sure to give the baby a drink of cool boiled water between feedings.

Be sure you know what kind of dairy your milk comes from. Always get bottled milk,—never "dipped" or sold in "bulk".

Be sure all bottles and dishes used in preparing the milk are boiled and kept clean.

Be sure that milk is kept cold. A cheap ice-box may be made at home and the milk placed in it as soon as it is delivered. Milk that is the least bit sour is unfit for the baby, and letting it stand outside the ice-box, especially when it is warm weather will hasten the souring.

SOME SLEEP THOUGHTS.

The baby should have its own bed and always sleep alone. Out-of-door sleep is an excellent habit, day or night, except in severe or very windy weather. It helps to harden and strengthen and protects against susceptibility to colds. If out-of-door sleep is impossible, the windows should be wide open and screens so arranged that there will be no draft.

Rocking, trotting, shaking, patting and "pacificators" are all bad for the baby.

Sleep Table.

New-born baby, and up to 2 weeks, 20-22 hrs.

Gradually more hours awake.

At end of 2 years, 15-18 hrs.

Long naps A. M. and P. M.

Afternoon naps until 4 and 4½ yrs.

After naps stop, a midday rest.

2 to 6 years—nights, 10-12 hours

naps 1-2 hours

6 to 10 years—nights 11 hours

naps 1-2 hours P. M.

CLOTHING THE BABY IN HOT WEATHER.

BABIES ARE MORE SENSITIVE TO HEAT AND COLD THAN OLDER PERSONS.

Clothing should at all times be light in weight and loose and suited to the weather and season.

In warm weather lighter clothing should be worn. Even in cold weather it is not best to use all wool garments next the skin; silk and wool or cotton and wool mixtures are best for shirts and bands.

The following rules have been found to promote health and well being:—

With a temperature of 65°, coat, cap and blanket are needed out of doors.

When the temperature reaches 70°, remove the shirt.

When the temperature reaches 75°, remove stockings and shirt.

When the temperature reaches 80°, remove the dress and slip, leaving only the diaper and a light silk and wool band.

Or the baby may have only a thin cotton undershirt and lie on, rather than be wrapped in the diaper.

On hot days, two five to ten minutes sponges may be given, using cool water and a little soda (one teaspoonful to a quart of water).

THE SICK BABY.

A normal, well baby is bright eyed, happy, content, active while awake, cries but little and sleeps peacefully. Sickness may come on suddenly or gradually. Children are usually four years old or more before they can intelligently answer questions concerning their feelings. Fever and sudden failing of appetite are the most common danger signals of illness in babies. Fever of 100.5°F. and less, may be overlooked without a thermometer.

How to Take a Temperature.

Every mother should know how to use a clinical thermometer and how to read it. The bulb of the thermometer should be well covered with soap or vaseline and inserted into the rectum for about an inch where it is held for two minutes, the baby being held quiet.

If the baby has a fever of 99.5°F. or more, a physician should be summoned immediately. Meanwhile, place the baby in a well ventilated room and give him no medicine until the doctor arrives. Keep a soiled diaper to show the doctor and never give a sick baby anything that has not been ordered for him by the doctor.

It is well to remember that Acute Otitis Media (middle ear disease) and Pyelitis (inflammation of the mucous membrane of the kidney) are the causes of many unrecognized sources of fever. The former can be diagnosed accurately by means of direct inspection and examination of the ear drums. The drums do not always bulge, particularly in the early stages. Pyelitis can be recognized by a microscopic examination of the urine—ten or more white blood (pus) cells per high power field of uncentrifuged urine. In girl babies only catheterized urine is reliable.

The sick baby needs a daily sponge bath. For cold feet or sub-normal temperature apply a hot water bottle or warm electric pad, care being taken to protect the baby's tender skin from being burned. There should be at least one daily bowel movement. Plenty of boiled water should be given to drink. A sick baby should be picked up and handled as little as possible. When fever is high a luke warm sponge several times a day is soothing.

Sick babies require plenty of fresh air and "letting alone." The air should never be cold or damp. Windows in the baby's room can be so raised and the heat so regulated as to insure cool refreshing air while the baby is under covers.

All rashes should be immediately reported to the doctor.

When the baby is convalescing, do not overfeed him. Give him plenty of sleep and leave him to his own amusement during the day. In this way he will acquire sufficient rest to replenish his reserve strength and build up his resistance.

A baby who has been trained in regular and healthy habits while well is more easily cared for when sick.

TEETHING.

Teething should never make the baby ill because it is an entirely normal happening. If the baby be ill, he needs the attention of a doctor. Gums do not become inflamed unless something is wrong.

The "milk teeth" begin to come at six months and by the time the child is two-and-one-half years old its first set of teeth should be complete.

These first teeth need care—regular daily cleansing from the beginning. The popular idea that there is no harm in first teeth decaying is responsible for much trouble with permanent teeth and accounts also for misshapen jaws.

Proper feeding is as necessary for good teeth as keeping them clean.

The mother's diet during the nine months she is carrying the child before birth determines the quality of her baby's bones and teeth.

Teething Table.

First group	6 - 9 mos.	Central Incisors	2 below
Second group	8 - 12 mos.	Central Incisors	2 above
		Lateral Incisors	2 above
		Lateral Incisors	2 below
Third group	12 - 15 mos.	First Molars	2 below
		First Molars	2 above
Fourth group	18 - 24 mos.	Canines (also called,	2 below
		“Stomach” & “Eye”	2 above
Fifth group	24 - 30 mos.	Second Molars	2 below
		Second Molars	2 above.
At 1 Year			6 teeth
At 1½ Years			12 teeth
At 2 Years			16 teeth
At 2½ Years			20 teeth.

Healthy babies do not always cut their teeth according to this table, and though perfectly normal, may vary somewhat in the time and the order. A baby who has no teeth at the end of the first year is not developing properly. The diet may be to blame. Consult a doctor

THE SECOND SUMMER.

It has been a tradition that the second summer is a very difficult time for the baby and the trouble has been laid to teeth. We now know, however, that wrong feeding is chiefly responsible for a sick baby when the hot weather comes on. A baby may be fretful with uncomfortable gums, as the teeth grow through, but the diarrhoea and digestive disturbances are not caused by the teething. Here we repeat again, the baby getting its own mother's milk is the lucky baby, and otherwise he must have carefully prepared and pasteurized fresh cow's milk. No baby can safely be given even little tastes of candy, pickle, cake, butter and other table food. If his digestion is tampered with, trouble may be expected. Directions for weaning have already been given, and if these are followed closely, and sensible care shown regarding the attention of extra food, the second summer troubles need not appear.

Oatmeal or barley jelly may be added to the milk at the ninth month, and at the twelfth month a small piece of well toasted bread, or a dry crust, may be given to "chew on" once or twice a day. Give no candy or sugar; it makes a "sour stomach". Meat broth with toasted stale bread crumbs, prune pulp, and scraped raw apple may be added one by one.

The number of feedings at fifteen months should have been reduced to four in the twenty-four hours.

By the eighteenth month, baked apple pulp, baked potato, well-cooked spinach, beets and vegetable soups may be given. (See Diet Card, Dept. of Health).

It pays to give the baby only cooled boiled water to drink between his regular feedings. The water having been boiled and cooled, should be put in clean glass jars, kept in the refrigerators. Trust no unboiled water for your baby, however "pure" it is said to be.

ENEMIES OF THE BABY.

1. Flies.
2. Unscreened windows and doors.
3. Dirty playthings and toys.
4. Dusting or sweeping the room while the baby is in it.
5. Using for the baby, a spoon or glass, or cup, that someone else has used before using for the baby.
6. A bottle, nipple, a crust, or a bone tasted by someone else before giving it to the baby.
7. All kinds of candy, ice-cream, tea, coffee, and cakes.
8. Sucking air from a partly filled or an empty bottle.
9. Bright sunlight in the baby's eyes.

10. Taking a baby into a home where there is illness.
11. Taking the baby to "movies", or to any other crowded place.
12. Picking the baby up the minute he cries. (Just be sure he is warm and dry,—that no pins are sticking him,—that hands and feet are not cold. If there is no reason for discomfort, let him cry.)
13. Dogs and cats in the house.
14. Sneezing or coughing near the baby or letting a person with a cold come near the baby:

GRADE A BOARDS OF HEALTH

In an earlier issue of the Listening Post, we promised to publish in the June number the Boards of Health of Pennsylvania which are complying with the 20 requirements necessary to grade them as class A.

Here they are and all honor to them—

Berwick, Columbia County
 Bloomsburg, Columbia County
 Waynesboro, Franklin County
 Emaus, Lehigh County
 Fountain Hill, Lehigh County
 White Hall Twp., Lehigh County
 Allentown, Lehigh County
 Hazleton, Luzerne County
 Kingston, Luzerne County
 West Pittston, Luzerne County
 Nanticoke, Luzerne County

Lebanon Ind., Lebanon County
 Bryn Athyn, Montgomery County
 Narberth, Montgomery County
 Danville, Montour County
 Easton, Northampton County
 Bethlehem, Northampton County
 Nazareth, Northampton County
 N. Catasauqua, Northampton County
 Wilson, Northampton County
 Selinsgrove, Snyder County
 Dallastown, York County

There are probably others. We sincerely hope there are and if they qualify, we will take pleasure in publishing additional lists as they occur.

The readers of the Listening Post may materially help to raise the standard of the Health Boards of Pennsylvania. This list should be a thousand strong. Many towns fell little short of the full requirements, often because of neglect of something which might have been easily corrected.

If you do not see your town on the above list, find out why.

Perhaps your inquiry may stimulate your Board to the extent that it will be listed as Grade A next month.



Issued Monthly
by The Division of Public Health Education
Penna. Department of Health

Vol. I.

JULY, 1923

No. 8

School days are approaching.

Now is the time to protect children against diphtheria.

*Three small doses of toxin anti toxin will make them
safe. Ask your Doctor about it.*



The Health Gnome Says —

*Keep your body well and stout
To keep health in and sickness out,
See your Doctor once a year
And have him overhaul your gear.
If you have cancer or nephritis,
Diabetes or bronchitis,
Heart disease, tuberculosis,
Or liver hardening with cirrhosis,
The Doctor will, for sure detect them
And early treatment may correct them.*

The Listening Post

A MONTHLY JOURNAL OF PUBLIC HEALTH

EDITOR
William C. Miller, M. D.

Address communications to The Listening Post,
Pennsylvania Department of Health,
Harrisburg, Pennsylvania.

Vol. 1	Harrisburg, Pennsylvania, July, 1923	No. 8
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"Acceptance for mailing at special rate of postage provided for in section 1103,
Act of October 3, 1917, authorized April 6, 1923."

Editorial

The letters of commendation which we have received are evidence that the efforts to make the "Listening Post" a useful aid to workers for Public Health have not been entirely in vain.

While limitation in the matter of finance made it necessary, several months ago, to reduce its pages from 32 to 16, it was planned to continue it as a monthly publication.

Still further curtailment, however, appears to be necessary and from this time forth publication will be quarterly.

The next issue will appear in October. In the meantime the "Listening Post" will be listening for suggestions—shall we keep the name or change it—if so, to what? How many pages should it contain? Should it be illustrated? Would you prefer that each number stress one particular subject or would you have the contents diversified?

Would you have reports of the different bureaus in each issue? Would you have tables of statistics or what would you have?

Send in your idea and don't be backward about it. Don't hold back for fear of wounding the delicate sensibilities of the Editor. Your criticism will do him good and he will like you the better for it.

The June issue is largely devoted to babies. If you happen to be so unfortunate as to have no baby of your own, give, or at least loan, your copy to some person who has one. The edition is limited to 5,000 and we have very few extras.

HEALTH EXAMINATIONS.

The Pennsylvania Department of Health—the Committee on Public Relations of the State Medical Society co-operating—called a meeting of public health workers at the Senate Caucus Room, State Capitol, June 21st., for the purpose of considering the proposition of launching a State campaign for health examinations.

After a free discussion, it was decided that such a campaign was not only advisable but feasible.

A general committee composed of 88 persons, with Dr. Charles H. Miner, Secretary of Health, as Chairman, was appointed to prosecute the campaign. Dr. Miner appointed the following persons as members of the executive committee—Dr. Edward Martin, Dr. William C. Miller, Dr. Howard Frontz, Dr. J. George Becht and Rev. C. Waldo Cherry—to advise with him in the formulation of plans and to work out such details as might be necessary to the successful culmination of the project. The committee adopted the slogan of the National Health Council, "Have a health examination on your birthday," and prepared a list of minimum requirements for the use of physicians in making health examinations. This list of requirements, which is obtainable on application to the State Department of Health, is intended as a guide to physicians in making examinations.

In Pennsylvania in 1922 the death toll of

Kidney disease was	9155
Tuberculosis	7940
Diabetes	1414
Cancer	7759
various forms of heart disease	16107

There is no law to compel people to conserve their health but an established widespread general sentiment will contribute largely to the effect.

In a letter issued to Clubs, Lodges and Societies, the Secretary of Health asks them to co-operate by passing a resolution endorsing health examinations and recommending each of their members to have a health examination at as early a date as possible. He asks them to pass a further resolution requiring all future candidates for membership to submit evidence of a recent health examination as a pre-requisite.

The family physician is the logical person to make this examination.

It is not intended, or expected, that applicants for membership to lodges, clubs or societies should be absolutely free from blemish, nor is it the idea that they should report, with their application, the existence of physical defects. It is presumed that if physical defects be present, the examining physician will make the proper recommendations. All the Department asks is the applicant for membership indicate by a signed slip from a physician that they have recently undergone a health examination.



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OCTOBER, 1923

No. 9.

<i>Diphtheria Immunization Campaign</i>	1-3
70 +	3-5
<i>Board of Health</i>	6-7
<i>Advisory Health Board</i>	7-8
<i>Vital Statistics for Pennsylvania, Six-month Period</i> .	8-9
<i>Bureau of Child Health</i>	9-14
<i>The State Nurse on Guard</i>	15
<i>Public Milk Supplies</i>	16-17
<i>Bureau Drug Control</i>	17
<i>Activities of Bureau of Engineering</i>	17-20
<i>Bureau of Communicable Disease Control</i>	20-23

*"It is not the guns or armament,
Or the money they can pay,
It's the close co-operation
That makes them win the day.
It is not the individual
Or the army as a whole,
But the everlasting team-work
Of every living soul."*

---Kipling---

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DIPHTHERIA IMMUNIZATION CAMPAIGN

During the early months of the year, the Pennsylvania Department of Health began an intensive campaign for the immunization of children against diphtheria, which resulted up to June 1st in the administration of toxin-antitoxin to 42,519 children.

This is satisfying but not complete. Diphtheria can be eradicated, but only by well-organized team work with all pulling together and in the same direction.

Let us consider a community in which no effort along this line has been made.

Two, three, four—a dozen persons, who are interested in the public health of the community, get their heads together and determine to inaugurate a local campaign for diphtheria immunization.

The first thing for them to do is to get the people to know what toxin-antitoxin is, what it will do and how it is administered. This may be accomplished in several ways. Below we give the text of a half page advertisement in the Allentown Chronicle and News and Evening Item, Thursday, May 3, 1923. Whether this was contributed free by the newspaper or paid for out of public health funds, we do not know, but it was a splendid advertisement which told the story and accomplished great good throughout the entire region in which that paper circulates.

DIPHTHERIA

Can be Controlled, Prevented and Cured

SAVE THE CHILDREN

Have you heard of the Schick Test? Ask your family physician to explain it.

Give the children a chance. They deserve it.

The children of today are the nation of tomorrow. Let's have a healthy nation.

The Pennsylvania State Department of Health furnishes antitoxin free.

When your child complains of a sore throat, call your physician.

This is a communicable disease and if not promptly treated is dangerous.

The earlier antitoxin is administered, the more certain are the chances of recovery.

All contacts should be immunized promptly.

Material for Schick Test and Toxin-antitoxin Mixture will be furnished free by the Pennsylvania State Department of Health, until June 1, 1923.

Many deaths caused by diphtheria are due to neglect.

Toxin-antitoxin injections will protect against the disease.

The Schick Test is harmless and determines whether or not a person catches the disease.

HELP US TO HELP YOU—LET'S WORK TOGETHER

Additional information may be obtained from your physician or Dr. J. Treichler Butz, Health Officer, Dept. of Health, Room 311, City Hall, Allentown, Pennsylvania.

Another method is to ask the State Department of Health to send a speaker to explain the advantage of the administration of toxin-antitoxin as a means of prevention against diphtheria. Should you hold such a meeting, do not fail to canvass the community thoroughly so that there will be a full and representative attendance.

Every community should have a Health Center. The Department of Health provides for pre-school children, that is, children up to and including 6 years of age, free toxin-antitoxin. The distribution is made, upon application, through Health Centers. In order that proper records may be kept (for this is essential to team work), all applications must be accompanied by slips signed by parents or guardians, indicating approval of the administration of toxin-antitoxin to their children. Upon similar application, accompanied by parental consent slips, any Physician of Pennsylvania, exclusive of the cities of Philadelphia and Pittsburgh (which have provisions of their own), will be sent toxin-antitoxin for the use of his patients, regardless of age, upon the payment of its actual cost. All bills are collectable at the manufacturing plant. The State Department of Health, acting merely as disbursing agent, sends out the toxin-antitoxin upon proper request and turns the orders over to the manufacturers, who collect from private Physicians at wholesale rates.

The toxin-antitoxin treatment consists of three small doses, administered one week apart, but owing to its instability and the fact that it can be properly kept only under refrigeration, the doses will be sent out as needed. The first dose immediately upon application, the second and third doses following automatically at intervals of a week.

Children under 6 months of age are usually not susceptible to diphtheria. Therefore toxin-antitoxin is not recommended during the

first 6 months of life. In order that there may be a check up as to results, the Schick Test is required 6 months after the administration of toxin-antitoxin. It is well to impress upon parents the value of the Schick Test after the administration of toxin-anti-toxin. The Schick Test consists of the introduction between the layers of the skin, usually in the fore-arm, of a very small quantity of diphtheria toxin. If after 2 days, or more, a reddish spot is noticed at the point of injection, it is an indication that immunization has not been effected and that the child remains susceptible to diphtheria. If, on the other hand, no reaction occurs, the parent may rest upon the assurance that the child is immune from diphtheria.

In order that you may be sure that you are properly pulling with the great team, as soon as you have organized, get in touch, by correspondence, with Dr. J. Bruce McCreary, director of the Bureau of Child Health, State Department of Health, who has charge of this campaign.

The Health Gnome Says

Toxin-antitoxin gives protection
And safety from diphtheria infection,
Do not hesitate a day
Ask your Doctor right away,
To give the first immunity injection.



70 +

Extract from Address delivered at the Convention of Graduate Nurses at Pittsburgh, October 24th.

William C. Miller, M. D.

"The days of our years are three score and ten;" so wrote King David of old and even today the 70th milestone is regarded as marking the end of the road, but the Psalmist added that "by reason of strength", mark well the words, there might be a still further extension.

What kind of strength is this, which will lift us up and carry us beyond the presumable natural limitations of life? Is it the strength of a Sampson to slay a lion with naked hands, to carry off the gates of a city on brawny shoulders? Is it the strength which enables

us to perform unusual feats—to run fastest—to leap highest—to heave huge weights or twist iron bars? If such were the strength required, few indeed would reach even the mark of three score and ten.

The normal human being is ushered into life weak and helpless, but endowed with potential vitality to live, grow and flourish.

Like a harp of a thousand strings attuned to harmony, each organ and part functions in unison with every other and performs its labor in accord with the original plan in the economy of nature. As the years advance, environing conditions bring dangers from without, while ignorance of, or perhaps indifference to, natural requirements, weaken the defenses within.

The defense within is "the strength", which is the guardian of our lives and the stay upon which we lean to take us over the goal line of three score and ten.

When disease producing bacteria, regardless of kind, enter the human system, the tendency is for their rapid increase, which is accompanied by the throwing off of toxin or the poison of disease. The presence of toxin stimulates the blood to manufacture an antidote which we call antitoxin and to increase the number of white blood corpuscles to make war upon the invading bacteria.

The success, or failure, of the defense is dependent, to a large measure, upon the degree of efficiency in the operation of the organs responsible for the maintenance of the body balances.

What is true of resistance against acute communicable disease, is alike conformable to the degenerative diseases which endanger middle life; if the agents of nutrition and elimination be functioning properly, the probability of arresting a lung condition is much greater than if nutrition were poor and elimination incomplete.

The heart often accomplishes compensating adjustment against apparently serious lesions when other body conditions are favorable; the same is true of other organs which may be the seat of degenerative processes.

Last year Pennsylvania's toll to degenerative diseases was 43,000. Of this number, the greater majority die at the period of life, in which they are of greatest service to the world, of highest value to the State and of the utmost need to their families. The number is greater than I have given, because I have taken only the total of five diseases—Bright's disease, cancer, diabetes, heart disease and tuberculosis. With the exception of tuberculosis, which occurs at all ages, all are essentially diseases of middle or after middle life: all including tuberculosis, are preventable and even after development, are subject to improvement and often arrest under proper medical direction.

There is always a chance of life extension, beyond the period of probability, if the case had been left uncared for.

Degenerative diseases are usually slow of development, so that if an examination today were to give a clean bill of health, the individual might rest with reasonable security in the belief that during the period of one year, no degenerative disease would develop to an extent beyond the possibility of arrest.

The campaign for health examination has for its slogan, "Have a health examination on your birthday." The birthday is suggested because it is a time all are sure to remember, and because it comes once a year whether you admit it or not.

The logical person to make the examination is the family physician.

* * * * *

In the matter of the control of communicable disease, we have quarantine laws and health regulations, the violation of which entails penalties—but for the control of degenerative diseases, there is no law—no one can be forced to take a health examination; it therefore, resolves itself into a campaign for education.

You will find many persons who hesitate to go to the doctor for examination through fear of the possible finding—it is wrong.

The urinary test which discloses sugar or albumin is by no means a death warrant, neither is a heart lesion to be regarded as a reason for despair.

I should be inclined to say that the person who has albuminuria at 45 is lucky, because such an individual will almost certainly live in accordance with medical direction and by so doing, is more likely to reach a good old age, than is the person who eats and drinks without regard to rule and who tries to make a middle age body act like a young one.

* * * * *

If every person over 35 were to have an annual health examination, golden wedding celebrations would become common occurrences. All of us who are really and truly heart and soul interested in this movement—which means so much to the human race and to the world's progress, must bend our energies toward educating the public, as to its value and make use of every effort to popularize it—we must advertise.

Universal health examinations mean that instead of the limit of life being three score and ten, it will be 70+. Let us work for 70+, and let it be our sign. When you mail a letter put the 70+ sign on its back that all may see. People who do not know what it means, will inquire about it; to those who do know, it will be a reminder. Let us spread the gospel of the 70+ far and wide and in every way possible that humanity may profit and the world be richer.

BOARD OF HEALTH

Since the issuance of the June "Listening Post", containing a list of Boards of Health which have qualified as Grade A, so many inquiries have come in, as to the requirements necessary to obtain this classification, that we feel justified in printing them again.

1—Board of Health must be regularly organized with full membership in accordance with law and must hold monthly meetings.

2—Board must make weekly reports to the Division of Vital Statistics, regular reports to the Division of Restaurant Hygiene and annual reports to the State Department of Health.

3—The Board must exhibit co-operation with the State Department of Health by prompt attention to correspondence.

4—Board must have the co-operation of the Council.

5—Board must receive an annual appropriation sufficient to carry on its work or must have satisfactory arrangement with the Council, under which all their bills shall be met.

6—Board must have an efficient Secretary.

7—Board must have an efficient Health Officer.

8—Board must be enrolled in District Association and dues paid.

9—Board must enforce quarantine.

10—Physicians must be required to make reports of all diseases notifiable by law.

11—The requirements of the Restaurant Hygiene Division must be carried out.

12—Disinfection after communicable diseases must be carried out in a manner approved by the Secretary of Health.

13—The town must have adequate sewers or privies and cess pools maintained in accordance with the requirements of the Department of Health.

14—The Board must maintain regular sanitary inspection and eliminate nuisances.

15—There must be wholesome and adequate water supply.

16—Board must maintain supervision over the milk supply.

17—The town must have clean streets and alleys.

18—The housing conditions must be in accordance with the requirements of the Division of Housing.

19—The anti-spitting law must be enforced.

20—The Health Officer must investigate rumors of reported disease, and cases thus found referred to the medical member of the Board for diagnosis and quarantine.

All Boards of Health in Pennsylvania are classified in the files of the State Department of Health in accordance with the above articles. There are 4 classes, A, B, C and D, signifying in their order, excellent, good, medium and poor.

The following scheme of classification has been adopted:—

Class A—observance of 20 articles

Class B—observance of 18 articles

Class C—observance of 16 articles

Class D—observance of 14 articles or less.

There are no doubt many Boards of Health not listed in the June issue of the Listening Post, which are entitled to be classed as Grade A Boards. We shall be glad to print the list which shall qualify during the next three months in the January issue. The following story is not told to cast reflection upon the work of any Board of Health, but we consider it apropos:

When Uncle Ned returned from South Africa he brought with him, among other curios, an ostrich egg, which the young hopeful of the family, at a favorable opportunity, appropriated and carried to his treasure house in the backyard; where it was later discovered by the Lord of the Flock, as he was making his rounds in pursuit of the "early worm". His astonishment was so great that for the moment he was nonplussed, but he soon regained his poise and sounded the general assembly call. The hens came flocking from every direction in eager anticipation of an appetizing feast; Chanticleer standing in front of his fowl, proceeded to address them something like this:—"Ladies, I have called you together as you may suppose, for a particular purpose, and I wish to state in the beginning I have no fault to find with you either individually or collectively" — "In fact I think you are as fine a bunch of chickens as I have ever seen. You are healthy, sprightly and good producers and I want you to understand, that no discredit attaches to you, but—(stepping aside)—I just want to show you what they are doing in other places."

Advisory Health Board

The Advisory Health Board, appointed in accordance with the provisions of the administrative code, met at the office of Dr. Charles H. Miner, Secretary of Health, on September 21st, for the purpose of organization and the consideration of future plans.

The Board is composed of men, who have not only had wide experience in public health, but who reside at points of the State which are strategic for the observation of professional and public reaction as to health practices.

The Board consists of—

Dr. Edgar Green of Easton. Chief Attending Physician of the Easton Hospital, trustee of Lafayette College and a County Medical Director for 17 years. Dr. Green, who was reappointed, has been a member of the Advisory Board for 10 years.

Dr. A. A. Cairns, Philadelphia, who is Chief Medical Inspector of the city of Philadelphia, was also reappointed. Dr. Cairns has been a member of the Advisory Board for 4 years.

Dr. S. R. Haythorn, Pittsburgh, is Professor of Pathology and Bacteriology at the University of Pittsburgh.

Dr. H. C. Frontz, Huntingdon, on the staff of the Huntingdon Hospital, President of the State Medical Society and County Medical Director for 17 years.

Dr. Lewis H. Taylor of Wilkes-Barre, Ex-President of the State Medical Society, has been engaged in public health work for 40 years. Dr. Taylor is the author of the widely published report of the Plymouth typhoid epidemic in 1885.

Mr. Charles F. Mebus, Philadelphia, is a member of the American Society for civil engineers, a prominent consulting and civil engineer

of wide experience in the design and construction of water works, sewer systems and sewage treatment work.

VITAL STATISTICS FOR PENNSYLVANIA SIX-MONTH PERIOD JANUARY TO JUNE, INC., 1922 and 1923

By Wilmer R. Batt
State Registrar.

A summary of the mortality in Pennsylvania for the first six months, 1923, shows a total of 68,385 deaths from all causes as compared with 58,933 for the same period of 1922.

Something more than half of this increase of almost 10,000 deaths was due to respiratory diseases, chiefly pneumonia in some of its various forms, and occurred during the first three months of the year.

The deaths for the several months of this period calculated on the basis of the corresponding annual death rate per thousand of population were:

	1923	1922
January	16.4	13.5
February	19.5	15.5
March	16.8	15.3
April	15.2	13.1
May	12.7	11.6
June	11.5	10.1

The climatic conditions during the early months were not at all unfavorable as compared with other years, but there seems little doubt that the inability to provide warm and dry homes was in a large degree responsible for the increased number of deaths from respiratory diseases and of course a tremendous increase in the sickness rate.

Of the infectious diseases of childhood measles caused 1,138 more deaths during the first six months of 1923 than for the same period of 1922. It represents one of the periodical outbursts of this disease which we experience every three or four years. 91,238 cases were reported to the State Department of Health in the first six months of 1923 as compared with 19,670 in the same period of 1922.

The number of births occurring in the State in the first six months of 1923 was practically identical with the number in the same period of 1922. In the former period there were 108,284 births and in the latter period there were 108,778.

Deaths from certain important causes exclusive of stillbirths:

	1922	1923
Total deaths exc. of stillbirths	58,933	68,385
Typhoid fever	132	159
Scarlet fever	226	220
Diphtheria	711	747
Measles	240	1,378
Whooping cough	253	577
Smallpox	5	0
Influenza	2,701	4,147
Malaria	5	3
Tuberculosis of lungs	3,840	3,836
Tuberculosis of other organs	574	522
Cancer	3,898	4,154
Diabetes	714	811
Cerebrospinal meningitis	193	189
Anterior poliomyelitis	14	17
Pneumonia	8,350	11,108
Diarrhoea and enteritis, under 2 years ..	1,099	1,083
Diarrhoea and enteritis, 2 years and over	259	269
Bright's Disease and nephritis	4,933	5,587
Early infancy	3,538	3,394
Suicide	532	493
Mine accidents	320	488
Railway injuries	288	431
Other forms of violence	1,954	2,198
Automobile accidents	399	548
All other diseases	23,755	26,026
Stillbirths	4,830	4,907

Bureau of Child Health,

Medical Director, Dr. J. Bruce McCreary.

In line with the administration's policy of consolidation of Departmental work, the Secretary of Health merged the Division of Child Health, School Health and Dental Hygiene and formed the Bureau of Child Health. A resume of the special work of each of the three branches, which are designated as Pre-School, School and Dental Divisions, is given by their respective Chiefs.

School Division, Jan. 1 to June 1, 1923.

Mr. John Ziegler, Chief.

Completed the medical inspection in 764 school districts of the fourth class, including 6,474 schools and 191,300 pupils.

Forwarded follow-up reports to teachers and letters recommending treatment and correction of defects for 129,936 pupils.

Received reports from 5,816 teachers reporting 29,925 pupils having received treatment or defects corrected.

Reports concerning the sanitary condition of school buildings with recommendations for correction where necessary were issued to 764 school boards.

Conducted special sanitary surveys of school conditions in Luzerne, Indiana, Franklin and Snyder counties.

Forwarded 230 blue prints and specifications for building of standard outside school toilets.

Approved the installation of septic tanks and subsurface disposal fields for 8 multiple room school buildings.

Pre-School Division, Jan. 1 to June 1, 1923.

Dr Mary Riggs Noble, Chief.

Fifty-one counties were visited by the three organizers for purposes of organization and consolidation of Health Center Work.

Severe winter weather and coal shortage greatly interfered with the baby work in January—several centers closed down entirely, opening later as roads opened with spring weather.

Emphasis was placed upon the Sunday School Campaign by all the organizers, and the place to work this among the church babies has proved to be one of the most successful—seventy-five campaigns are known to have been conducted. In several instances the work was undertaken with the county as the unit, notably in Venango and Lackawanna Counties where the results were impressive.

Early in the year, the first midwife survey of Lackawanna County was well under way and the supervision of midwives started. Six unlicensed women were convicted in the county. In February, Schuylkill County midwife work was begun by a special worker. By the end of June, midwife work was a "going concern" in all four counties, to which the work is limited. Dr. Reis divides her time between the counties. The State Nurses visit the babies and Dr. Reis directs, supervises and instructs the mothers—special attention being given to getting rid of unlicensed women.

In Pittsburgh, under the auspices of the Congress of Clubs of Western Pennsylvania, a baby campaign was conducted in a prominent Department Store. The firm erected and equipped the booths on one side of its auditorium and supplied a variety of garments and paraphernalia for demonstration, and the number of babies receiving complete physical examination on our State record forms was unexpectedly large.

In May, the Governor signed the Enabling Amendment, receiving in a manner satisfactory to the Bureau, the Sheppard-Towner funds for infancy and maternity work.

Seventy-eight audiences were addressed by the staff of the Division and approximately four thousand people thus reached.

The statistics for the baby and prenatal work follow, for the first six months and for the third quarter.

Prenatal Clinics
Statistics for Jan.-August, 1923.

	State			Non-State		
	New	Return	Total	New	Return	Total
January	16	37	53	497	1,219	1,716
February	20	39	59	327	827	1,154
March	17	90	107	820	2,974	3,794
April	26	89	115	768	3,094	3,862
May	23	65	88	972	3,320	4,292
June	32	96	128	1,029	3,529	4,558
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Total 6 mo.	134	416	550	4,413	14,963	19,376
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July	32	121	153	109	3,309	3,418
August	38	66	104	1,099	3,520	4,619
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Total 2 mo.	70	187	257	1,208	6,829	8,037
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TOTAL	204	603	807	5,621	21,792	27,418
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	New			Return	Total	
	5,825			22,395	28,220	

Dental Division,

Dr. C. J. Hollister, Chief.

For three years, the State Department of Health has been engaged in demonstrating to local communities the importance of the care of the teeth of children.

The plan has been, to make formal request to school boards throughout the State for permission to put on a demonstration of one or two weeks, without cost to them. If granted, the mobile dental clinic with its operating personnel goes to the community and demonstrates the value of a preventive dental, practical and educational system in a school curriculum, especially for the primary grades. During the stay of the traveling clinic, arrangements are made for its personnel to address welfare bodies in the community, such as—Kiwanis, Rotary, Lions' and Women's Clubs, Parent-Teachers' Associations, Chambers of Commerce, School Boards etc.

Since January 1, 1923, in addition to those already functioning, seventeen communities have installed nineteen dental hygienists in their schools, and ten more are under consideration. Sixty dental hygienists are working in the schools of Pennsylvania at the present time. Two dental hygienists have been installed in State Mental Hospitals, and one in an industrial plant.

Statistical evidence of dental defects obtained from school medical inspection reports, show over *seventy percent* of all the school children in the State suffers from dental defects.

The Chief of the Dental Division, with his assistants, prepared an exhibit which was shown at the Annual meeting of the American Dental Association, held at Cleveland, Ohio, September 4-19. Ten thousand dentists in attendance, represented every State in the Union. As a part of the exhibit were two huge maps (cuts of which are shown on the following pages) setting forth the plan of organization of dental health education in Pennsylvania.

Map No. 1 shows the distribution of the State into zones, together with the location of corrective dental clinics, preventive dental service, where a dental hygienist is employed and towns which have both dental clinics and dental hygienists.

Map No. 2 shows the plan of the organization through which the Central Office at Harrisburg and the Pennsylvania State Dental Society, to which great credit must be given for its helpful cooperation in the State Dental Campaign,—supervise the correction of tooth defects in school children.

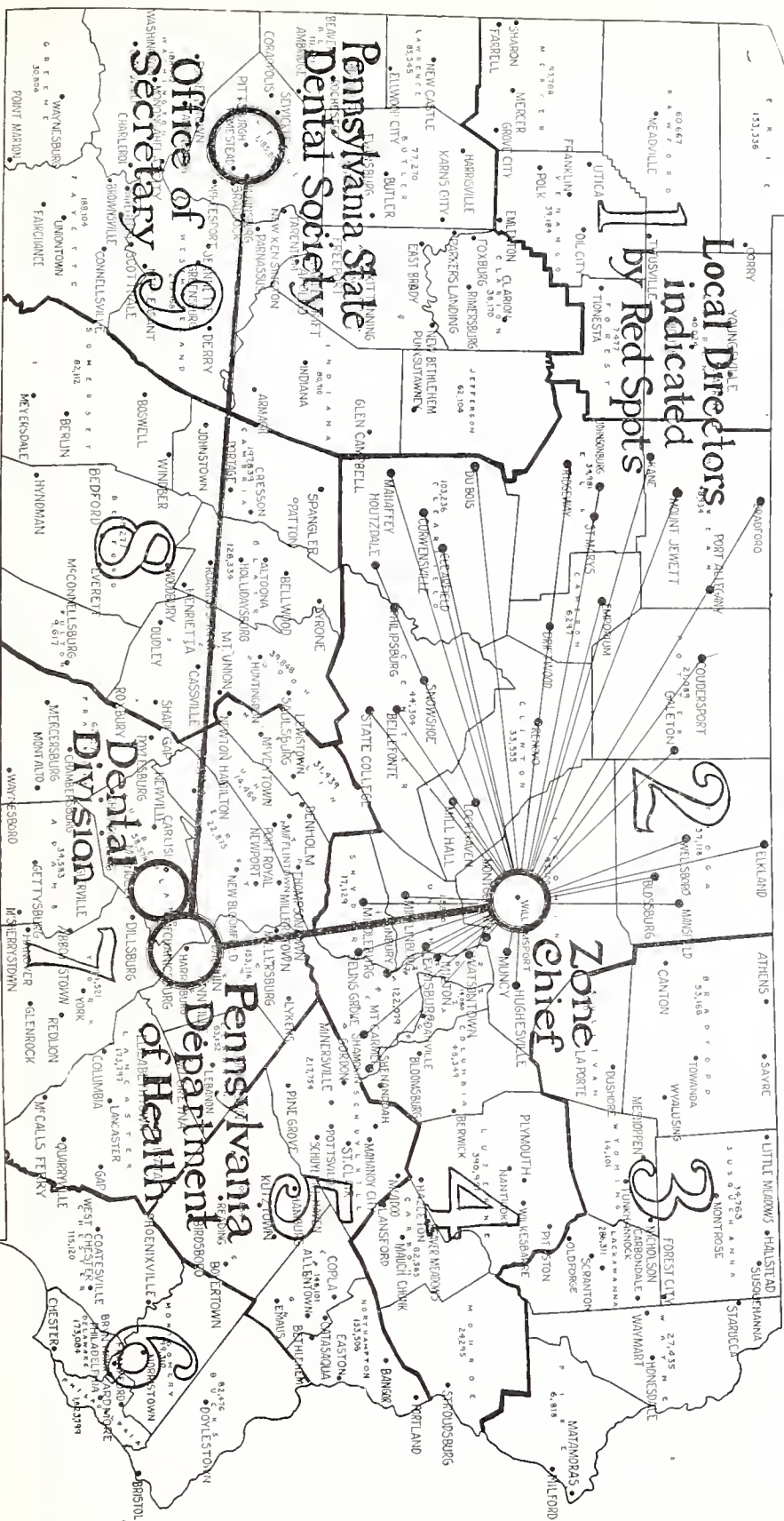
Each of the zones is organized in the same manner. The organization of zone No. 2 is used to illustrate the plan. In each zone there is a Zone Chief, appointed jointly by the Pennsylvania State Dental Society and the Pennsylvania Department of Health. His service is voluntary and he receives no compensation. The Zone Chief acts in a supervisory capacity over all the clinics within his jurisdiction. The lines radiating from the Zone Chief to the different towns of Zone No. 2 indicate the dental clinics in that district. The dentists in charge of the various clinics are appointed upon the recommendation of the Zone Chief and also serve without pay.

The reports from the various clinics to their respective Zone Chiefs are transmitted to the Central Office of the Pennsylvania Department of Health.

This form of organization has not only been found to work out satisfactorily, but it has resulted in a marvelous extension of interest in the correction of tooth defects of children, because every clinic worker automatically develops into a public educator along the line of corrective dentistry for children.

Public Dental Health Education in Pennsylvania

Scheme of Organization

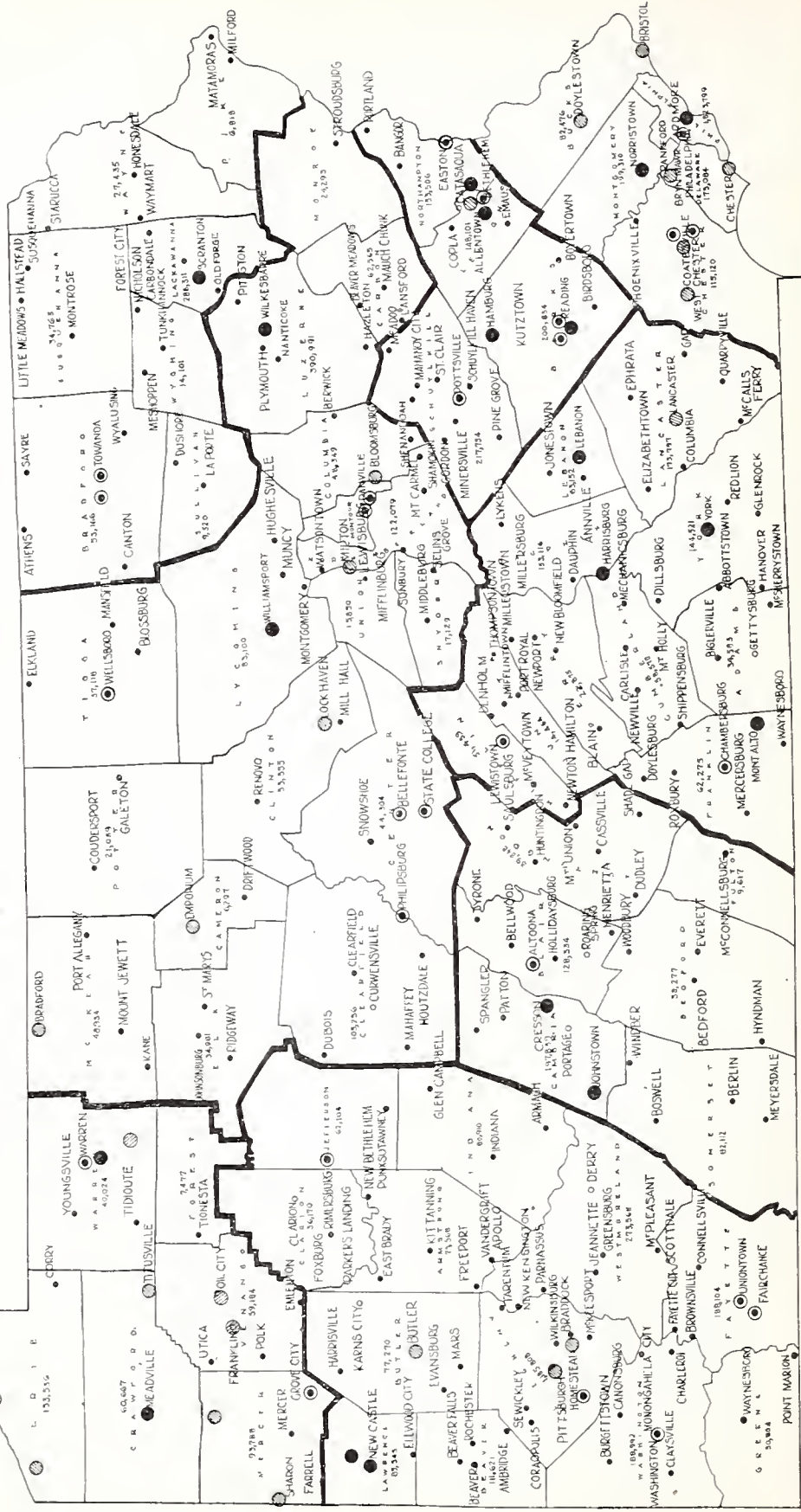


All Zones are Organized as Zone 2

Public Dental Service in Pennsylvania

Class 1 ● Corrective Dental Clinics
Class 2 ○ Preventive Dental Service - Dental Hygienist.
Class 3 ● Dental Clinic and Dental Hygienist

Key:



Division Lines indicate proposed zoning of State for Educational Activities of State Dental Society.

The State Nurse on Guard.

By Miss Alice O'Halloran,

Director, Bureau of Nursing.

During the present year the work of the Nursing Division has been steadily progressing toward higher standards of public health and social betterment. Notwithstanding the effects of a period of reorganization and retrenchment, the nurses have responded well, and were found ready to meet new requirements placed upon them.

In various sections of the state the functions of health officers have been taken over by the nurses, in addition to their field work and service in clinics.

Up to the beginning of September the total number of visits made by patients to state clinics was as follows:—

Tuberculosis clinics,	41,653
Genito-Urinary clinics,	72,761
Child Health Centers,	32,151
Prenatal clinics,	319

The nurses in this time made 116,736 visits to the homes of patients.—an average of 14,592 visits per month.

An important feature of the work in connection with the health centers is the follow up and correction of such common defects, as diseased tonsils and adenoids, decayed teeth, defective vision et cetera. Over eight thousand corrections have been accomplished this year, and in cases of indigency glasses have been procured through the nurses' efforts.

In the intensive campaign against diphtheria which was conducted in May and June, 9,300 persons were given the Schick test, and 12,811 received the toxin-antitoxin treatment for immunization. This work was largely among school children and those of pre-school age who are most susceptible to the disease.

Over 42,000 cases of communicable disease have been visited and investigated through the first eight months of the year. In every instance the nurse gave instruction as to proper care of the patient and precaution against the spread of the disease.

Much work of this nature is being done in the following counties: Cambria, Fayette, Schuylkill, Northumberland, Washington, York, McKean, Bucks, Susquehanna, Montgomery, Lawrence, Adams, Greene, Somerset, Snyder, Chester, Clearfield, Lycoming, Mifflin, Westmoreland, Wayne, Union, Armstrong, Clinton, Berks, Bedford, Blair, Bradford, Dauphin, Columbia, Monroe, Delaware, Franklin, Huntingdon and Lebanon.

In addition to the foregoing duties, the State nurses stand prepared for whatever emergency may arise, whether it be a call for service in a miners' eviction camp, an epidemic, accident, fire, flood or disaster.

PUBLIC MILK SUPPLIES

Ralph E. Irwin, Chief, Milk Control Division.

In 1732, Mr. Schaeffer, founder of Schaefferstown, Lebanon County conducted water from a spring through hollow logs to a trough in the village square. This was the first public water supply in Pennsylvania. Twenty-two years later, Bethlehem, Northampton County, and sixty-nine years later, the city of Philadelphia, installed public water supplies. Then followed a rapid development. Today more than 900 public waterworks supply practically every community in our State.

The public milk supply is following a similar development. As we are compelled to give up the spring or well in our back yard or that of a neighbor, so today we are unable to keep a cow to supply our family with milk or purchase from a neighbor. The individual milk supply is giving way to the public milk supply.

As the community grew, the dairy cow kept moving away from the center of population, until it became necessary to deliver milk by wagon, then by local railway train and now by refrigerated express cars or insulated automobile trucks, from country receiving and cooling stations. Our milk supplies have even outdistanced our water supplies in the matter of distribution. The milk left on our doorstep today may have been delivered yesterday from a farm located hundreds of miles away. Such milk, however, may be in better condition than that brought from a local dairy farm, because of recent improvements in refrigeration and transportation.

Milk is distributed from house to house much as the public water supply is distributed—we may know the name or office location of the water or milk distributor, but we know not the source or safety of the supply. We may judge its appearance and taste, but we depend upon public officials for safety.

The public water supply is obtained from one or at most a few sources, is slow to change in quality and its preparation and distribution are carried on by very few people. The public milk supply, on the other hand, is obtained from many sources, is a most perishable product, and its preparation and distribution require the services of many.

The source of our water supply—the spring, well or stream—is protected in every way possible against contamination, but failing in this, the water is treated by filtration or by chemicals. When the source of our milk supply—the herd and those who handle the milk—is not known to be free from disease, the milk should be treated by pasteurization to make it safe.

These treatment processes are beyond the control of the water or milk consumer, are of great public health concern and necessarily become a matter of supervision by trained public health officials.

In our State each municipality is authorized to provide such control of its milk supply as is deemed advisable. Doubtless this is cor-

rect. State control exists to promote uniformity in the regulations of the various communities and to aid those desiring assistance in the preparation or enforcement of local regulations. The milk supply in any municipality is under the control of the municipality and its condition is that desired by those in authority. Here is an opportunity to demonstrate community pride in a public milk supply as has frequently been done in water supplies.

Bureau Drug Control.

J. N. Lightner, Chief.

During the period from June 1 to August 30th, 1923, forty-four drug peddlers and addicts were arrested and convicted, receiving sentences from three months to four years.

The Bureau's Inspectors have been co-operating with the Federal Narcotic Agents in Pittsburgh and Philadelphia.

Narcotic raids were conducted in two cities, Harrisburg and Pittsburgh. On account of these raids, numerous addicts have applied for institutional treatment for the purpose of affecting cures from the habit, and in many instances permanent cures have been effected.

ACTIVITIES OF BUREAU OF ENGINEERING JANUARY 1st to AUGUST 31st, 1923, INCLUSIVE

Primarily, engineering in health work deals with public water supplies, sewerage and major health nuisances; in practice, it involves disease epidemics, safe milk, housing conditions, garbage and rubbish disposal, treatment of industrial wastes, eradicating the mosquito, etc.

The Bureau of Engineering of the Department of Health comprises the chief engineer, an assistant chief engineer, civil, sanitary, chemical, milk control and housing engineers, 8 district and 8 assistant engineers, and stenographic and clerical force. The State is divided into 8 districts, each in charge of a district engineer.

70 per cent of the total population of Pennsylvania obtains drinking water from 650 public waterworks. Of these, 163 have filtration, 247 use a chemical germicide and the remaining 260 depend upon watershed protection or long-time storage to yield a potable water.

Waterworks may be built or extended upon the issuance of a permit by the Secretary of Health. Nearly 1500 permits have been issued since 1905. From January to September 1923, 67 were granted. Permits are issued, upon recommendation of the Bureau of Engineering, which later inspects the waterworks to see that its requirements are complied with, and that the filtration and chlorination plants insure safe water. Since the first of the year, inspections of 163 filtration plants and 202 chlorination plants were made.

The purity of drinking water supplies used in Interstate traffic is certified to the U. S. Public Health Service upon recommendation

of the Bureau of Engineering. Up to the end of August, 51 certificates were issued.

In Pennsylvania there are 974 municipalities, half of which have public sewers. There are 192 sewage treatment works. Permits must be issued for all new sewers, sewage treatment works and for the discharge of sewage. Field investigation and examination of the plans of sewage projects is the province of the Bureau of Engineering. During the last 17 years more than 1600 such studies have been made, 51 since January 1st.

In matters of stream pollution, the Bureau of Engineering operates under the Sanitary Water Board, which consists of the heads of five (5) State Departments with the Secretary of Health as Chairman. This Board is also authorized to investigate and report upon ways and means of preventing and eliminating pollution, detrimental to the public health, or the health of animals, fish, aquatic life or to the use of waters for recreational purposes.

MILK CONTROL

Milk Control is carried on to prevent communicable disease transmissible through milk and to increase the consumption of safe milk. Detailed supervision is effected through the local officials of municipalities; in townships of the second-class, the Department has entire supervision.

Milk Control activities may be classified as follows:

1. The enforcement of Advisory Board Regulations concerning milk. The Advisory Board Regulation approved April 4, 1923, provides that *milk sold to the consumer as raw milk shall be obtained from herds tested at least annually for bovine tuberculosis and that those who handle the milk, until it is in containers which have been filled and closed, shall undergo a medical examination at least semi-annually. Milk not obtained from tested herds shall be pasteurized.*

Pasteurization is defined as subjecting the milk to a temperature of not less than 145 degrees Fahrenheit or more than 148 degrees Fahrenheit for a period of not less than thirty minutes.

Those handling milk during and after pasteurization shall pass a medical examination similar to that given those who handle raw milk

2. The preparation of milk regulations suitable for municipalities requesting assistance. Thirty-four smaller municipalities, having a total population of over one million, have enacted such milk ordinances.

3. Assisting in the passage of milk ordinances and their enforcement, when requested by municipalities.

4. Assisting, when requested, in the operation of milk treatment plants, for the correction of quality factors, such as taste, odor, creaming power, etc.

5. Inspecting the dairy farms furnishing the three institutions for the treatment of tuberculosis; all have plants where the milk is clarified and pasteurized.

The Bureau's Chemical Laboratory, in addition to routine work, makes special investigations in problems of water supplies, sewage treatment and industrial wastes. Since January 1923, 541 analyses were made of water and sewage, 192 of narcotic drugs and miscellaneous. Under miscellaneous are 22 analyses of sand for filter plants and 25 microscopic examinations of water.

25 per cent of Pennsylvania's population resides in rural districts where the health laws are directly administered by the Department of Health. Since January 4000 inspections were made in these districts, 779 nuisances reported and 788 abatements secured.

The Housing Division of the Bureau is charged with the administration of the Law; the active field work is carried out by the district engineers and their assistants.

It is the plan to enlist the cooperation of local boards of health in handling housing work, and thus enlarge the sphere of administration of the housing law.

The 85 County fairs, attended yearly by over two million people, and the Pennsylvania's National Guard Encampment at Mt. Gretna were inspected with reference to the purity of the water supply, safe excreta disposal and the disposition of garbage and manure. The health of the campers at 100 camps has been safeguarded through engineering examinations.

From January to August, inclusive, the Bureau has made sanitary investigations of 59 epidemics of milk and water borne disease, a number of which has been typhoid fever on dairy farms. Of special import, because of the large number of cases in comparison with population, are the typhoid fever outbreaks at Karthaus, Edgewood and Locust Gap.

Since the first of the year, one sewage treatment plant has been reconstructed and put into operation, four filtration plants have been started and 19 chlorination plants have been installed.

To ascertain the condition of some of the major streams of the State, the Chief Engineer made a field inspection of both the North

and West Branches of the Susquehanna River, Lackawanna River, Clarion River, a portion of the Allegheny River and the Youghiogheny River.

The prolonged drought of 1922 reached its peak in January 1923. The most acute situation was in Washington where the water supply for almost 30,000 people was nearly depleted. The chief Engineer assumed charge and with a force of engineers carried out a program of conservation, including rationing of the supply, which continued until a reserve was established and immediate stringency relieved.

About the middle of summer when Pennsylvania was verging on drought conditions, the Secretary of Health issued a circular letter to about 350 waterworks, calling attention to the drought and suggesting measures for conservation of water. An extensive rainfall relieved the immediate danger, except in the Shamokin, Mt. Carmel and Pottsville region which is in the Southern Anthracite Coal Fields. Here the situation has been and is still acute, necessitating the rationing of water in a number of the larger communities. Temporary supplies, chlorinated to safeguard the public, were used to augment the normal supplies.

Conneaut Lake in Crawford County and Harvey's Lake in Luzerne County are the first and second largest natural bodies of water in Pennsylvania. Each place is a summer resort. The Bureau of Engineering during the present year undertook an intensive clean-up campaign at each place. This entailed an investigation of water supplies, sewage disposal, garbage disposal and general cleanliness, the collection of numerous water samples, the placarding of those shown to be unsafe, the giving of advice relative to sewage and excreta disposal and other activities bearing on the general health of the communities.

At Harvey's Lake, a printed card entitled "Sanitation at Harvey's Lake," containing advice and suggestions about water supply, sewage disposal, garbage, fly eradication, etc., was distributed to each property holder on the watershed.

The importance of such work is evident when it is understood that each resort is visited during the vacation season by thousands of transients who, in case of infection by typhoid fever, for instance, might carry the disease into other communities.

Work of a similar nature was carried on at Lake Nuangola and at Saylor's Lake.

Bureau of Communicable Disease Control.

Dr. J. Moore Campbell, Director.

The re-organization of the Department of Health in the early part of the year combined the Communicable Disease Division, the Tuberculosis Dispensary Division and the Genito-Urinary Division into one Bureau, designated the Bureau of Communicable Disease Control. This merger has resulted in a definite economy. Venereal dis-

eases and tuberculosis offering the tremendous problems which they do, a Chief of Division has been continued in charge of each. The advances each of these may have made in the way of re-organization or in effective work will be outlined separately by those in charge.

The old Medical Division has become the Division of Epidemiology. Its outstanding need has long been a trained field service with the addition of one or more epidemiologists attached to the Central Office and available for field work in emergencies. With the appropriation at its command, no real re-organization of its health officer force has been thought feasible, but a real forward step has been taken in employing so far as possible, health officers on salary and having them give their entire time to the sanitary and quarantine work in their districts. Wherever available conditions permitted, Department nurses have been assigned to health officer work. These assignments have especially improved the field service. To date approximately thirty counties have been given this better service.

Prior to the Session of the 1923 Legislature, many of the provisions of the quarantine law had become obsolete. The law itself was subject to criticism in that various details of quarantine were specified and were, therefore, unalterable except through legislative action. A new law eliminating the objectionable features of the old one was passed. Its most important provision is the conferring of authority upon the Department of Health and the Advisory Health Board to make such quarantine regulations as may be considered necessary, including authority to alter or abolish provisions as made in accordance with advances of the public health practice. An entire re-writing of the quarantine regulations has been accomplished and approved by the Advisory Health Board. They will have become effective by the time this number of the Listening Post goes to print.

Division of Genito-Urinary Control.

Edgar Everhart, M. D., Chief.

The Legislature of 1923 passed a law which deals with prostitution in a more effective manner than any previous mandate on the statute books. It allows the Magistrate to punish the frequenter as well as the prostitute without the fact of personal immorality being proved. The sentence is a fine up to \$1000 or imprisonment not exceeding eighteen months, either or both at the discretion of the Court. Prostitutes may be imprisoned in sectarian institutions peculiarly adapted to their rehabilitation, provided the Department of Public Welfare and the State Department of Health approve of such institution, and provided further, that sentences are to be directed to an institution of the professed faith, if there be such, of the individual.

Pennsylvania's Department of Health takes the position that the police power should be used coincident with that of health officials, in that the power to quarantine should be applied after an investigation made by the State Police force, which investigation would

justify the institution of criminal proceedings. The latter, however, being deferred until the disease factors are rendered negligible through the quarantine procedure.

Since June 1st, the State Clinics have the following activities to their credit—patients admitted, 5528; rendered noninfectious, 2999; cured, 1638; quarantined, 2256; number of lectures, 72 with an attendance of 17,000.

Patients treated are of a type which would not receive attention, had they not been treated in the clinics.

During the summer of 1923, the Division's State Wide campaign against the disease spreading carnival was again instituted, resulting in a diminishing number of these shows in the State. The Department's concern in the carnival is justified because of the inevitable wake of venereal disease following its activities.

As the result of the Division's contract with different prison boards, the majority of penal institutions in the Commonwealth are now equipped for the examination of all inmates and for proper treatment of those venereally diseased.

In order to meet the economies necessarily occasioned by a reduced appropriation, a small charge sufficient to cover the cost of material used by patients in clinics has been set, for those able to meet it. Patients not being able to pay even the small sum are treated free as formerly. In no sense does this plan compete with the private physician. The hearty co-operation of the clinicians has been given to it.

What is Happening this Year in the Tuberculosis Division

John D. Donnelly, M. D., Chief.

In accordance with the program outlined by the Secretary of Health, the Tuberculosis Division is pursuing the State's established tuberculosis policy. In every town where there are State Chest Clinics, overhead expenses are defrayed by the community. The Health Department furnishes equipment, supplies and nurses. The physicians appointed by the Secretary of Health receive a small remuneration.

The combination of local and State support is practical. It helps stimulate local interest and furnishes means whereby indigent cases and those capable of improvement are cared for and admitted to the State Sanatoria. Provisions are made for children, contacts and those with latent tuberculosis.

Up to September 15th, there were 109 State Chest Clinics in Pennsylvania. On this date the cities of Philadelphia and Pittsburgh assumed responsibility for their own clinics, leaving the Department 95 clinics. The Philadelphia and Pittsburgh clinics have

been made Admitting Centers for the State Sanatoria, which gives them the privilege of listing their patients for sanatorium care directly through the office of the Division of Tuberculosis. In Pittsburgh there is retained a State clinic chief to look after patients in Allegheny County.

A number of industrial corporations are aiding the Department of Health. One has provided beds in a sanatorium for their tuberculous employees.

During the first eight months of 1923, the State Chest Clinics examined 13,896 new patients of whom 3314 were found to be tuberculous. Patients attending the clinic made 35,707 return visits or in all, a total of 49,603 visits have been made so far this year to the State clinics.

Since the first of the year the State nurses have made 65,292 visits to tuberculous patients. Those who have a physician or can afford to pay for medical services are not admitted to these clinics unless referred by a physician to whom they are returned after an examination and study. There are many who can afford the average medical fee, but not the expense of keeping a patient in a sanatorium. Such can be admitted to the State Sanatoria when recommended by the State clinic to which they are referred by their physician.

The clinics are desirous of examining as many children as possible, particularly those who are subject to frequent colds or who are under-weight or malnourished.

So far this year there have been over 2,000 patients admitted to the State Sanatoria at Hamburg, Cresson and Mont Alto. Cresson and Hamburg Sanatoria are taking children and all classes of pulmonary tuberculosis, that are capable of improvement. Mont Alto admits only adults in the early stages of the disease. The average time between making application and receiving notice to report is one month.









